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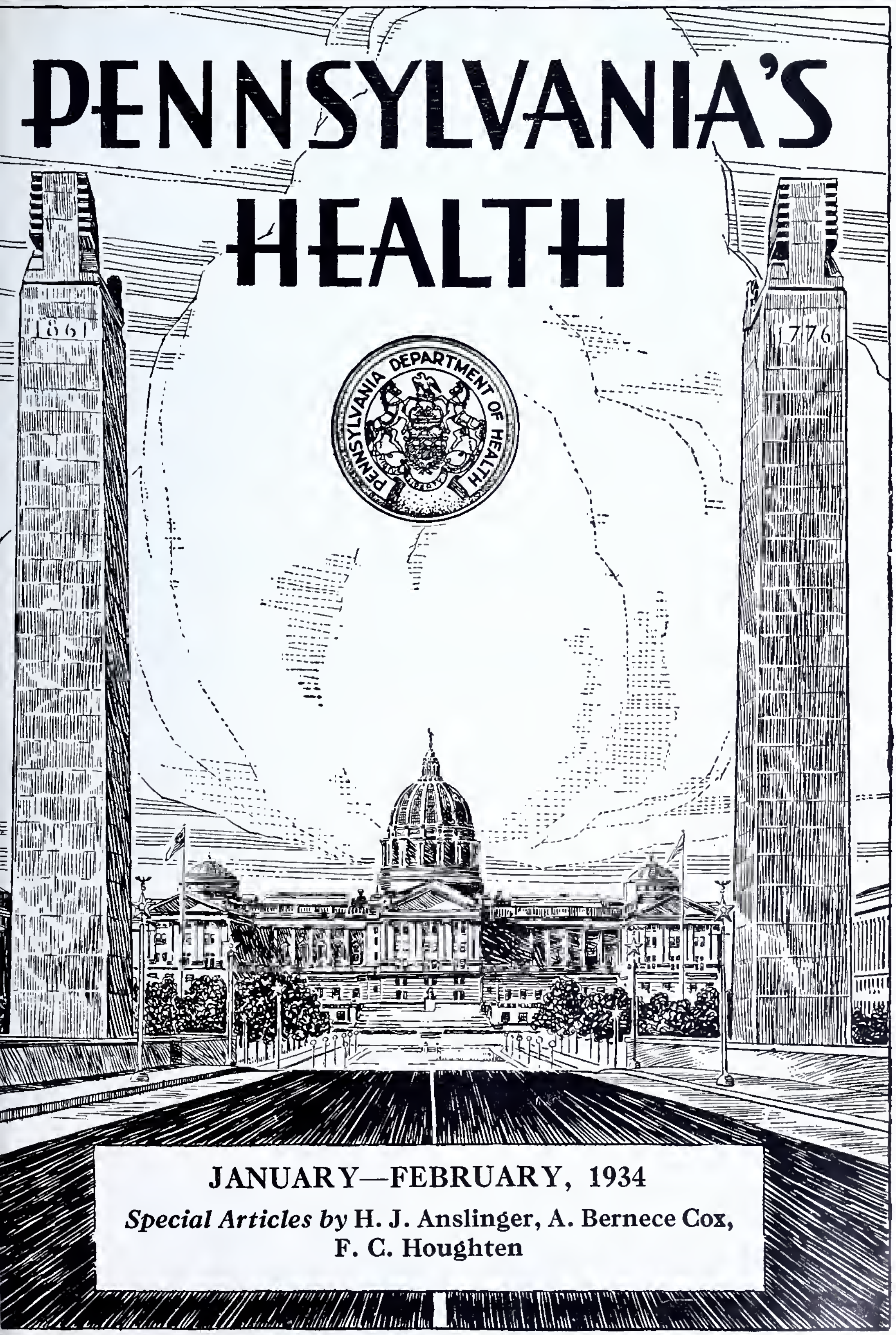

JANUARY—FEBRUARY, 1934

Special Articles by H. J. Anslinger, A. Bernece Cox, F. C. Houghten

HE 1.17/4/7

Pennsylvania's Health

Official Bulletin of the Pennsylvania State Department of Health

THEODORE B. APPEL, M. D., Secretary of Health
J. CLARENCE FUNK, Sc. D., Editor

Vol. 12 Harrisburg, Pennsylvania, January-February, 1934 No. 1

"Acceptance for mailing at special rate of postage provided for in Section 1108, Act of October 3, 1917, authorized April 6, 1923."

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Published bi-monthly by The Pennsylvania Department of Health, Harrisburg, Pa. This Journal is free to the people of Pennsylvania. A request to the Editor, Department of Health, Harrisburg, Pennsylvania, will bring a copy of this magazine to your home without charge.

Editorial

OURSELVES AND THE OTHER FELLOW

THE tremendous and entirely logical emphasis that is now being placed upon child welfare should not be the all-inclusive health passion that it has turned out to be for many of us. For, in spite of the perfectly natural desire to do the maximum for our own children and those of the less fortunate, there yet remains the problem of ourselves.

Just the other day a fine woman, who for a number of years has been energetically solicitous for the well-being of not only her two youngsters but for many others, died prematurely, the victim of an objective welfare obsession.

This leader in civic and humanitarian affairs had become so utterly engrossed in the health of children generally, and her own in particular, that she failed to give herself any consideration even in spite of warning symptoms. She would get around to her condition when the opportunity presented itself. Her sacrificial attitude, however, did not prevent her premature decease from cancer which had eloquently announced itself in precancerous symptoms. All for the other fellow, nothing for herself.

In varying degrees this type of psychology is entirely too prevalent. Being stimulated into a spirit of helpfulness for others, too many persons are entirely unconscious of the health obligation which they owe to themselves.

To be rationally concerned about the welfare of others is worthy, but to permit that concern wholly to absorb one's attention to one's own physical detriment is not in the least rational; conceivably it may even be fatal.

It is therefore suggested that we be careful to put our own house in order and keep it there, along with our activities for others in whom we have a personal or community interest. By so doing we may perhaps help to reduce the appalling increases in the death rates from the so-called degenerative diseases that have shown such a progressively acute affection for the middle-aged and older. But much more than that, we may add many more useful years to our own lives.

It should be appreciated that the annual physical examination, fresh air, exercise, sufficient sleep, and food in proper amounts, while not infallible against disease and early death, are great bulwarks against them. And true welfare, not only for ourselves but for others, most certainly involve them. Are we forgetting this fundamental fact?

J. C. F.

THE CONVENTION FOR LIMITING THE MANUFACTURE AND REGULATING THE DISTRIBUTION OF NARCOTIC DRUGS

Harry J. Anslinger
U. S. Commissioner of Narcotics

THE principal narcotic law enforcement problem in the United States is that of preventing the unlawful introduction therein, from abroad, of narcotic drugs and particularly of derivatives of opium and the coca leaf. Foreign overproduction, that is, total production over and above what may be termed medical needs, supplies the illicit international traffic. The United States is one of the victim countries as domestic manufacture of the drugs is so limited to medical needs that diversion of the home-manufactured product is comparatively negligible.

Recent enforcement activities of the newly-created Federal Narcotic Bureau, in conjunction with other governmental agencies, have produced gratifying results in curbing the unlawful introduction into the country of narcotics, but it is obvious that control of the traffic should commence at the source by eliminating, if possible, overproduction. This the Convention for Limiting the Manufacture and Regulating the Distribution of Narcotic Drugs attempts to do and, if made effective and enforced by the high contracting parties, is what it should accomplish.

The Convention not only tends to make more effective the intent and purpose of the Hague Convention, to which the United States is already a party together with some 48 other powers, but goes even further in its plan of control and in specifying the means by which that plan is to be made effective. It will be seen, for instance, that the Convention controls the manufacture and distribution of codeine, a derivative of opium not heretofore coming within the purview of the Hague Convention. The Convention also extends to substances synthetically prepared but identical in chemical constituency with opium and coca leaf derivatives, thus bringing under its control substances which may be chemically morphine, heroin, cocaine, etc., even though not in fact derived from opium or coca leaves as the case may be.

A system is provided whereby each country submits in advance to a supervisory body an annual estimate of its needs; such estimate, so far as it relates to domestic consumption, to be based on the medical and scientific requirements of the particular country. Manufacture is thereafter limited to the total quantity shown by the estimates, and importation and exportation is regulated with a view to preventing the accumulation in any country ostensibly for medical and scientific needs any quantity of manufactured drugs in excess of the actual medical and scientific needs as previously estimated by that country and supported by an explanatory statement of the method by which the needs were calculated. In the field of international control this system approaches, in principle, the national system of drug control under our federal laws.

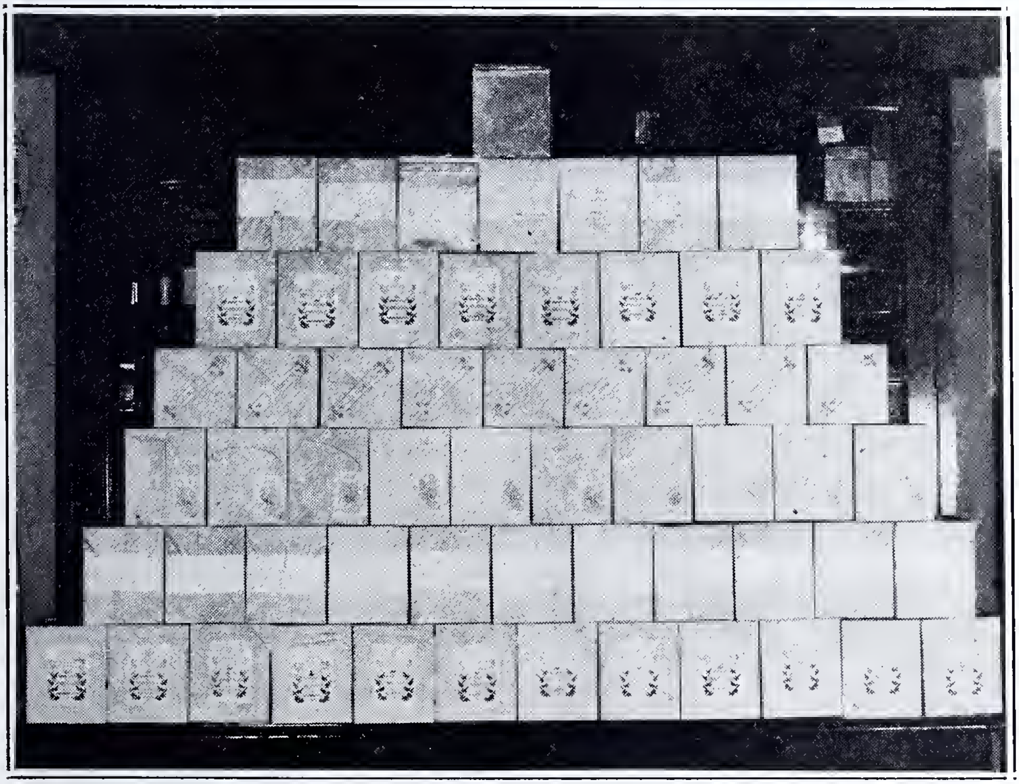
By adopting certain provisions of the Geneva Convention, exportation of narcotics generally is limited to that for which an import certificate from the country of destination has previously been obtained, and the standard form of import certificate recommended contains a specification that the drug is to be imported for medical or scientific needs. Here again a method of control enjoined upon all parties to the Convention approaches the method already required by the federal laws of the United States.

A special administration is required to be created in each country for the purposes of applying the provisions of the Convention; regulating, supervising, and controlling the trend in the drugs, and organizing the campaign against drug addiction. As a member of the Convention, the United States could expect helpful cooperation of the administrations so created in other countries with that already existing under its own laws, in the exchange of information respecting, and combined efforts directed against, international traffickers in contraband drugs.

A Seizure of Contraband Drugs on a Ship in New York Harbor

Each high contracting party is required to exercise a strict supervision over the amounts of raw material and manufactured drugs in the possession of each of its manufacturers, and the accumulation of a stock of raw material in any factory beyond a certain specified reserve is prohibited. This harmonizes with the present system of control of raw material and manufactured drugs in force in the United States and merits the support of the United States in an international sense. When the raw material made available to any factory is limited, the quantities of drugs to be manufactured, producible only from such raw material, are limited accordingly.

The United States, as one of the victim countries of foreign overproduction, has much to gain from the operation of the Convention, which went into effect July 9, 1933, by virtue of the ratification by the United States and by the ratification or accession of six other manufacturing countries and 32 other world powers. The restriction under the Convention of overproduction should prevent such clandestine shipments to the United States as that received on the S. S. *Alesia* from Turkey, consisting of 25 cases described as furs but really containing 17,500 ounces of morphine, the largest single shipment of morphine ever seized in the United States. A photograph of several cases of the morphine seized on the *Alesia* accompanies this article. Recently, a large shipment of morphine bearing labels of the Japan Pharmaceutical Establishment was seized on the Pacific coast, a photograph showing the packages of narcotics involved in this seizure being published herewith. It is considered unfortunate that Japan as a manufacturing country has up to the present time failed to ratify or accede to the Manufacturing Limitation Convention.



A Shipment of Clandestinely Shipped Drugs From Japan

The Health Gnome Says—

If one believes the statements
    On the air and printed page,
Food is a mighty terror,
    In this great day and age.

It makes one fat, it makes one thin;
    It even gladly slays—
Food is not the good old stuff,
    As in the "good old days."

At least so diet cranks exhort,
    With all their might and main,
And thousands get quite taken in—
    Which really is a shame.

They count their precious calories,
    And they eat what they don't like;
They're devoted to their spinach,
    And for roughage they will fight.

Now, folks who do these foolish things,
    Refuse to use their head,
For barring illness or disease
    All foods should rule instead.

It's not what to eat or shun that counts;
    Moderation alone should reign;
So cut the fads and fancies,
    And get back to earth again!

J. C. F.

FADDISM IN DIET*

A. Bernece Cox
Dietitian, Canonsburg Hospital

TO THE mystical Vale of Avalon, made a part of our poetry by Tennyson's *Idylls of the King*, in A. D. 61 came Joseph of Arimathea, bearing the Holy Grail, to preach the gospel in England. In a green meadow on what was then an island crowned by a high, rounded hill he planted his staff. It took root and grew and became a thorn tree. For ages since then men have gone from the ends of the earth to pluck a sprig of this Holy Thorn that it might be buried with them to insure their welfare in the land beyond the grave; or have traveled to spend their last days beneath the sacred tree and be buried in its shade. Here, too, the remains of Joseph of Arimathea became famous for his wonderful cures, and pilgrims to his shrine brought gifts till the riches of Glastonbury Abbey exceeded those of many kings. On wonder-working relics the success of every ancient Abbey depended.

In the *Science News Letter* for October 29, 1932, the president of the New Mexico State Teachers' College, interested in finding out the prevalence of magical thinking among the parents of elementary school pupils east, west, north, and south, is quoted as concluding that 59 per cent of the population and 32 per cent of the teachers believe that eating fish improves the brain. Here one is bound to quote Mark Twain who replied to a young author's question as to whether there was justification for a statement that fishermen are more intelligent than farmers because they eat so much fish. "Yes," Twain said, "authors are recommended to eat fish, because the phosphorous in it makes brains. So far you are correct. But I cannot help you to a decision about the amount you need to eat—at least, not with certainty. If the specimen composition you send is about your usual average, I should judge that perhaps a couple of whales would be all you want for the present, not the largest kind, but simply good, middle-sized whales." I just wonder how many of us would react the same as Mark Twain if confronted with a similar circumstance?

Unfortunate adventures, in ignorance, into diet fads are not rare. No doctor will ever waste his time on an argument as to which current economic or social or political topic most interests the average American. He knows, despite what editors and other trained feelers of the public pulse may think, that your chief interest is not whether Russia will make a go of Communism or the saloon will come back. He knows that your major interest is your bowels and your second concern is your stomach. Doctor Kraetzer, in *Colliers* for April 29, 1933, writes: "Americans are the most bowel conscious, the most constipated, the most dieting folk in all the world. We know more about constipation and about food, talk more about both, have more advanced ideas about them, and succeed less with either, than any other race."

Eating should be one of the greatest pleasures of life; but we Americans take less joy from food than any sophisticated people. Out of a grotesque vanity of false information, molded by our diet racketeers, we have founded a national superstition that pleasure while eating means penalties after eating. The average European enjoys his food for its own sake, and shuns the unpalatable. We tolerate food for our health's sake, and make a virtue of unpalatableness. For instance, a civilized European does not eat spinach because a man in his office had a cousin Emil who knows a girl who was cured of moles on her left heel by eating it! He eats spinach only if he likes it and wants to eat it.

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*Address delivered at the Washington County Public Health Association meeting.

Eating—one of the simplest of all human needs, and one of the easiest to satisfy—has become to us a weird rigmarole of rules and regulations. We have more taboos against food, including the one against meat, than the South Sea Islanders have against the spirits of their departed in-laws; we have more superstitions about our diet, including the one that "it must be balanced," than the Aleutian Eskimos have about totem poles; each of us has more food fetishes than Billy the Kid had notches on his six-shooter.

Foremost among our diet fads we find our obesity diets and so-called diet aids. Let us analyze just a few of these highly advertised methods of weight reduction. Dr. Morris Fishbein, editor of the Journal of the American Medical Association, writes: "The term face-lifting is applied not only to the surgical shortening of the skin at the side of the face but also to a treatment by the application of mud in which some astringent, possibly aluminum acetate, is incorporated. This is left on the face for some time and then washed off and a non-muddy preparation given for daily application. In a hypersensitive patient it is possible a dermatitis may result. Slenderizing massage sounds much like advertising 'hokus.' There is no astringent or other preparation that would contribute to reduction of girth; massage helps tone but does not reduce the weight. Along with the astringent and massage the non-professional 'Beauty Specialist' advises a diet of some patent medicine containing thyroid extract in an effort to obtain results that may be ascribed to massage. Harm might easily result from either of these measures in the hands of the untrained." Doctor Fishbein goes on to state that Marmola is one of the most common adjuncts to the face-lifting treatment and that each tablet contains one-half grain of thyroid extract.

Kruschen Salts is another of our well known and widely followed fat reducing mixtures. The Bureau of Investigation of the American Medical Association, in November, 1931, published the following information: "Kruschen Salts, put on the British market by E. Griffith Hughes and on the American market by E. Griffith Hughes, Inc., is a patent medicine (that is a package medicine, secret or semi-secret in composition) sold under a proprietary name for self-treatment. It has been advertised for years in the British Isles for removing uric acid from the blood, and as a wonderful producer of vim, vigor and vitality. British advertisements show old men of seventy whose actions are those of an adolescent. He is seen turning cart-wheels and jumping over fences to express what is meant by the 'Kruschen Feeling.' Recommendation is that it should be taken daily. You read in newspapers that Nellie Simpson lost 100 pounds and Mae Jones lost 25 pounds in four weeks by the same method. Exploiters say that Kruschen Salts is a reducent in exogenous obesity, which is only a high-hat way of saying the same thing you see in the newspapers. Queer how we may be impressed if the hokum is put in sufficiently impressive phraseology.

"There are two forms of Kruschen Salts, the tablet and the powder. It is recommended for pains, aches, gout, rheumatism or lumbago.

For a laxative, two tablets should be taken each morning and for any of the other ailments, four to six tablets each morning."

You see, one must cultivate the habit not just take them occasionally. In a package with the salts is a diet that suggests that the patients totally abstain from butter, cream, cheese, sugar, candy, pastry, potatoes, oils, fats, meats and bacon; and to take milk, bread, macaroni, figs and raisins only sparingly; thus taking out of the diet all of the fat forming foods. The Bureau of Investigation states that Kruschen Salts is composed of 71 per cent magnesium sulphate, 10 per cent sodium chloride, 6 per cent potassium nitrate, and 9 per cent citric acid. This method of treating obesity is not nearly as rational as a diminution of the intake of nourishment. This method of treatment is also directly harmful in certain forms of constipation. It is contra-indicated in chronic atonic constipation. It not only antagonizes the underlying pathologic condition but aggravates it by lessening the need for peristaltic activity since liquid contents are more easily propelled than solid material. The only way Kruschen Salts can reduce weight is by production of an artificial diarrhoea that moves food through the digestive tract before it can be assimilated.

No Diet Fads in This Home. The Only Question is Sufficient Food

A similar method of treating obesity is by using "Fayro," which is a mixture of impure magnesium sulphate and sodium chloride scented with oil of pine needles. The powder is to be dissolved in a tub of hot water and as the patient bathes himself his excess fat is supposed to be dissolved. Fayro is also advertised as a specific for arthritis, gout, and colds.

An investigation of Doctor Stoll's Diet Aid was made public in the January issue of the Journal of the American Medical Association, 1933. This dietary treatment is sold through beauty parlors. It is advertised in the following manner:

1. When used as a beverage according to directions it is absolutely guaranteed to reduce fat.
2. Diet Aid is the answer of science to the demands for effortless and safe method of reducing excess fat.
3. Doctor Stoll's discovery will bring a new ray of sunshine into the life of every fat person.

The composition of Diet Aid is carbohydrate 75 per cent, fat 4 per cent, and protein 9 per cent. These foodstuffs are derived from the milk chocolate, starch and the water extract of roasted whole wheat which go to make the formula for Diet Aid. The directions on the package asks us to use 1 teaspoon of the powder to 1 cup of water, which according to the former analysis would give 9 calories of carbohydrates, 1 calorie protein, and 1 calorie fat, making a total of 11 calories in 1 cup of the beverage. The directions further state that 1 to 2 cups of the beverage are to be substituted for breakfast or lunch of a regular reduction diet. Now, do you see why the aid in reduction? Whatever virtues Diet Aid may have as a pleasant drink, the idea of using the preparation as a substitute for breakfast and luncheon in cases in which reduction in weight is sought would seem to be without scientific basis. The person who follows the Diet Aid suggestion must inevitably receive a hopelessly unbalanced diet.

Quackery flourishes like a green bay tree. This, not altogether because of the perennial gullibility of the public but because the profits are large and easy and the penalties under our laissez faire methods negligible. German Tea packed by Carl Beyer ranges in numbers from 1 to 14; each tea being the cure for a different disorder. An analysis of the tea made by the Bureau of Investigation of the American Medical Association discloses that the main constituent is senna leaves with a small percentage of bluet, calendula flowers, wild cherry, licorice, anise, fennel, shepherd's purse, uva urisi, and some unidentified leaf fragments. This preparation is supposed to be used three times daily—just another case of a purgative.

Kenneth Roberts, in an article in the *Saturday Evening Post* entitled, "An Inquiry Into Diets" (Oct. 15, 1932), shows what happens to one who collects diet books regardless of who wrote them, and accepts the authors at their own valuation. He asked Senator Moses, of New Hampshire, to help him make his collection, and from the Congressional Library he received "a dark gray mail sack which apparently held two grand pianos and a kitchen stove; when opened it proved to contain nothing but the cream of diet books." He says, "They are written by Doctors, most of them—the most recent school of diet thought believes nearly every disease in the world to be not only the result of eating improper foods, but also the result of eating proper foods in improper combinations. Unless he is eating the food that the diet books say he ought to eat, he is being as effectively poisoned inside as though he had been nurtured on poison ivy salads with bichloride of mercury dressing. If a person is so ignorant as to permit fermentable foods to pass his lips he is doomed. They give him acidosis and what acidosis will do to him in a quiet way is beyond belief. All this being so, I cannot help but think that the medical profession is in urgent need of a King James who can persuade the diet doctors to unite on an authorized diet for the good of the country. If this proves impossible of accomplishment, I am faced with the inescapable conclusion that all diets are worthless; that the diet doctors, in spite of their claims, are not interested in the good of the country; and that the medical profession is incapable of recognizing a proper diet when they see one."

It is indeed sad that persons proven by their own words to be sons and daughters of "systemized ignorance" should ever be regarded as representative of the highly trained, scientifically minded medical profession, which has publicly repudiated many of them.

But comforting is the hope that the members of the Public Health Association, ever advancing their standards of scientific training, may spread freely the fundamental principles of good nutrition upon which all experts in the science are agreed. Then dietetic quackery will bring no dividends and the charlatans will flee to realms where ignorance is denser and trade in magic more profitable.

PROGRESS IN THE DEVELOPMENT OF SCHOOL VENTILATION*

F. C. Houghten
Director, Research Laboratory
American Society of Heating and Ventilating Engineers

SCHOOLHOUSE ventilation is a subject concerning which there has been difference of opinion and debate for a number of years. The arguments in the discussion have come chiefly from three sources: first, the tax-payer who has consistently opposed the added cost of ventilation unless its need was proven beyond doubt; second, the engineer whose argument for greater air change has been based fundamentally upon what his experience has taught him to be necessary in order to give satisfactory ventilation for the occupants of a room; third, from the medical and public health men whose argument for a smaller air change has been based upon the minimum requirements which are theoretically necessary, regardless of the practicability of efficiently satisfying these minimum requirements in practice. The main arguments have centered around the quantity of air necessary for ventilation of the school.

Recent Research

During the past one or two decades the fundamental data on which ventilation must eventually be based have been clarified through research carried on by the Research Laboratory of the American Society of Heating and Ventilating Engineers in cooperation with the United States Public Health Service and the United States Bureau of Mines, and by the medical and public health departments of a number of universities, including Johns Hopkins, Pennsylvania, Harvard, and Yale, and by research, observation and standardization on the part of the public school organizations of several states or commissions appointed by them. Examples of the latter are the work carried on by the New York State Commission on Ventilation a decade ago, and that now under way by the Pennsylvania Commission on Schoolhouse Heating and Ventilation, composed of engineers, educators, and medical and public health men.

The subject of schoolhouse ventilation may be discussed under two general headings: first, the acceptance of fundamental standards of atmospheric conditions which are desirable within the school for the health, comfort, and alertness of the child; and second, the design, installation and operation of the equipment used to maintain these standards. While the realization of the former are absolutely dependent upon the latter, we may safely limit our discussion at this, a public health gathering, to the former, because our primary interest is centered in this phase of the subject, and also because the second part of the subject becomes extremely complicated when consideration must be given to the limitations of the variously designed equipment on the market. The sole test of such equipment as far as we are concerned is whether or not it will fulfill the fundamental standards of atmospheric conditions agreed upon.

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*Address delivered at the Ninth Annual Meeting of the Pennsylvania Public Health Association.

The heating and ventilating of a schoolhouse must be considered a process of producing and maintaining an atmospheric environment for the children which will be conducive to health and comfort and which will encourage the best mental activity.

In the history of the development of heating and ventilation of school buildings, the first considered function, namely, that of maintaining proper temperature, still remains the most important. However, while in the early development the attention was directed mainly to supplying heat in colder climates, the present need is to avoid overheating.

Much attention has been given to proper temperature, and since wide variation of humidity conditions exist throughout the United States or even through the single State of Pennsylvania, the specification of proper temperature must also include a consideration of relative humidity. A very comprehensive investigation of the effect of temperature and humidity on a person's feeling of warmth, health and comfort, was carried on during the past decade at the Research Laboratory of the American Society of Heating and Ventilating Engineers in cooperation with the United States Public Health Service and the United States Bureau of Mines in Pittsburgh, resulting in a scale of effective temperatures which is an index of a person's feeling of warmth in atmospheres of different temperature and moisture content, or different dry-bulb and wet-bulb temperatures.

Temperature Demands

These investigations indicate that close to 100 per cent of persons normally clothed and seated at rest indoors during our heating season experienced optimum comfort as regards feeling of warmth in an effective temperature of 66° F. This condition can be realized with a 66° F. dry-bulb and 100 per cent relative humidity, 70° F. dry-bulb and 50 per cent relative humidity, or 75° F. dry-bulb with 5 per cent relative humidity. Since extremes in relative humidity are not practicable and probably not desirable, we may limit our consideration to percentages ranging from 60 to 20 per cent, over which range 66° F. effective temperature gives a dry-bulb temperature variation from 68° F. to 73° F., respectively. There is still some difference of opinion regarding the desired effective temperature for schoolrooms, some arguing that the temperature should be kept on the cool side of comfort, that is, so that the child will be slightly cooler than his natural choice would dictate, it being argued that such conditions are more conducive to alertness. On the other hand, some argue that the temperature naturally chosen by a person for optimum comfort as regards feeling of warmth, is most conducive to spontaneous activity and mental alertness. However, these arguments admit of a maximum variation of only a degree or two from 66° F. effective temperature.

The desirability of relative humidity control aside from its effect on the feeling of warmth is subject to difference of opinion. There are at present no scientific data on the subject which can be accepted as conclusive. The preponderance of medical opinion is that a low relative humidity, under 20 or possibly 30 per cent, is conducive to a catarrhal condition of the throat and nasal passages and the common cold. There is also a less crystallized opinion that high humidities, above 60 or 80 per cent, are also undesirable. Certainly, regardless of their direct effect on the child, extremely low humidities should be avoided if possible because they encourage the raising of dust and the drying out and cracking of furniture, while extremely high humidities are undesirable because they encourage a general damp and unsanitary condition.

A set of ventilation standards recently adopted by the American Society of Heating and Ventilating Engineers specifies that the effective temperature should be within the range of 64° to 69° F. during the heating season, and the relative humidity within the range of 30 to 60 per cent.

The work of the Pennsylvania Commission on Ventilation has not reached a finality which will permit the announcement of definite standards accepted by it. However, it may be of interest and not out of order in this paper to mention the limits of variation in the fundamental standards to which it is given consideration.

A Modern Schoolroom Has Plenty of Fresh Air and Sunshine

Considering the fact that humidity control is not economically possible in all schools of the State, two standards have been considered by the Commission; one for schools in which control is had of the moisture content of the air, and another for schools without such control. Where provision is made for humidity control dry-bulb temperatures ranging from 68 to 70° F. have been considered. Where no control is had of humidity dry-bulb temperatures from 68 to 72° F. have been considered. Cold outdoor temperatures are always accompanied by low moisture content of the air and therefore low relative humidities indoors when the temperature is maintained in the neighborhood of 70° F. Hence, higher indoor temperatures are necessary with low outside temperatures, unless the air is artificially humidified. This accounts for the greater temperature range allowed when humidity is not controlled. The temperatures of corridors and workshops should of course be lower, while those of dressing-rooms, shower-rooms and swimming-pools should be higher.

Second to air temperature and its counterpart, relative humidity, air motion is perhaps most important. Strictly speaking, air motion should be considered with relative humidity as a counterpart in determining effective temperature. However, since excessive air motion in schoolrooms is naturally avoided, we need give consideration only to air velocities below 60 feet per minute. Air motion of this magnitude is measured by the Kata Thermometer which is sensitive to eddy currents as well as direct linear velocities.

A reasonable air motion, possibly ranging from 20 to 50 feet per minute per occupant, is highly desirable in an occupied space in order to remove the air next to the body and replace it with air of the general atmospheric conditions found throughout the room. Lack of sufficient air motion of this type is probably the chief cause of what is generally called a stagnant, stifling, or stuffy condition of a room. While the general atmospheric condition in a room a few feet away from an occupant may be ideal with no air motion, the air in actual contact with the occupant will be hot and humid, and hence, there is an absolute need for a small air motion to secure satisfactory ventilation.

Air Motion

The Code of the American Society of Heating and Ventilating Engineers specifies that in ventilated space occupied by human beings the air motion as measured by the Kata Thermometer should not be more than 50 feet per minute; no minimum is specified. The Pennsylvania State Commission on School Ventilation has given consideration to air motions ranging from 20 to 60 feet per minute.

While air motion of the magnitudes considered above are now thought to be only secondary in importance to temperature in ventilation, it was given little or no consideration until the last decade—more particularly during the past five years. It is probable that the real reasons for the misunderstanding and controversy regarding the desirable rate of air supply was based upon lack of understanding of the roll played by these air movements and their source. The medical man approaching this subject from the theoretical point of view could see no reason why an excessive air supply was necessary for human health and comfort. The engineer on the other hand knew full well from his experience that he could not insure satisfactory conditions within a ventilated schoolroom without supplying by his usual methods volumes of air ranging from 20 to 30 cubic feet per minute per occupant.

Naturally, many attempts were made by the engineer to justify this high rate of air change, which included the carbon dioxide concentration as put forward by early medical men, and later the question of some unknown organic poison given off by the human body. Only recently after studying all the component factors entering into ventilation has it been realized that with the usual methods of admitting air to, and removing it from, a room it is necessary to circulate somewhere between 20 and 30 cubic feet per minute per occupant in the usual sized classroom in order to give an air motion throughout the room ranging between 20 and 50 feet per minute. It was not always clear to the engineer that some of the large volume of air which had to be circulated could be recirculated within the room. Likewise, it did not always occur to the health and medical men who took part in the controversy that the large air change supplied by the engineer was necessary in order to give a desired air motion within the room.

As referred to above, the question of quantity of outside air to be supplied in the ventilation of a schoolroom has been the point of much controversy. Since the establishment of the importance of air motion and its relation to air circulation, the question of air quantity has been investigated during the past few years on its own merits. All engineers and medical men who are students of the subject now agree that an air change from 20 to 30 cubic feet per minute per occupant is not necessary. The real outside air requirements are being investigated from a number of points of view at the present time. It appears now that the chief limitation on the minimum requirement of outside air is the limitation dictated by the necessity to remove odors coming from the bodies and respiration of occupants. Quantities of outside air considered to be necessary for this purpose range from as low as 5 cubic feet per minute per occupant to as high as 15. Further studies will no doubt establish the limit much more closely.

Yes, Until Recently, This Was a Schoolhouse!

Professor Yaglou, formerly with the Research Laboratory of the American Society of Heating and Ventilating Engineers and now at Harvard School of Public Health, is investigating the subject under a cooperative agreement with the American Society of Heating and Ventilating Engineers. His studies during the past year indicate that with proper temperatures, an air change in the neighborhood of 10 cubic feet per minute per occupant is sufficient to eliminate objectionable odors. This volume has been tentatively accepted by the American Society of Heating and Ventilating Engineers in their ventilation standards. The Pennsylvania State Commission on Heating and Ventilation of Schools has given consideration to quantity of air change ranging from 5 to 15 cubic feet per minute per occupant.

A Vital Characteristic of the Atmosphere

The literature on ventilation records a continuous search for some unknown vital characteristic of the atmosphere which might account for the difference between the so-called "fresh" or stimulating effect sometimes experienced and the stagnant effect experienced at other times when one says the ventilation is poor. Incidentally, the engineer tries to avoid any use of the term "fresh air" for, after all, what is fresh air? By fresh air, one person means air that has come from the outdoors, regardless of whether it comes from the vicinity of a cesspool, garbage-dump or smoke-stack, while others consider fresh air as air having the desired qualities for human well-being. This vital characteristic of the atmosphere has variously been attributed to low carbon dioxide content, the temperature of the air, its humidity, its ozone content, its freedom from some unknown organic poison, the presence of some element or quality akin to vitamin in food, ionization, and more recently air motion. In light of better understanding of the role played by air motion, it is quite probable that air motion is the most important quality of air determining its stimulating feeling.

Professor Yaglou has recently studied the prevalence of ionization characteristics of the atmosphere under different outdoor and indoor conditions. This study is also being carried on in cooperation with the American Society of Heating and Ventilating Engineers. His results show a close correlation between some of the ionized characteristics and those conditions of the atmosphere which generally have been considered favorable. It is reasonably possible that a continuation of his studies may prove certain ionization characteristics as highly desirable in man's atmospheric environment either indoors or outdoors. Outdoor air seems to be high in this desirable ionization characteristic, while the atmosphere indoors in a crowded room without an excessively high rate of air change is very low. In case these ionization characteristics are proven desirable, they can be artificially controlled and will probably be replenished by artificial means rather than by the excessive air change necessary to maintain the desired condition with outdoor air.

While tremendous strides have been made in the understanding of the requirements for ventilation in general and more particularly in the ventilation of school buildings, there is still need for further work. The final solution of the problem must come through close cooperation between the engineer, the educator, the school executive, and the medical man. Strictly speaking, the logical procedure would be for the medical man to write a specification for the physical and chemical qualities of the air desirable in ventilated space, and for the engineer to devise ways and means of fulfilling this specification. Unfortunately, this picture has not always been accepted, and frequently in the past we have found the engineer working on the development of fundamental specifications of air quality, while the medical man has tried to tell the engineer how to maintain an unknown standard. The past few years has seen the passing of this controversy and a closer and keener cooperation among all concerned. In the final solution of the problem let us hope that this cooperation will continue.

DEPARTMENT NEWS

HEALTH SURVEY BY THE STATE POLICE—Cooperating with the Department's venereal disease section, the Pennsylvania State Police are making an investigation of roadhouses in Pennsylvania to check on conditions which might involve the spread of social diseases.

"While the reports thus far reaching the Department," recently remarked Dr. E. S. Everhart, division chief, "indicate that of those places so far investigated, the majority do not have conditions which might affect public health, nevertheless, considering the hundreds of establishments of this character, sufficient evidence has developed to justify this activity.

"While the majority of operators realize their obligation both with respect to the law and to the health of the traveling public, there is an unfortunate minority who capitalize immorality and its serious disease consequences. The State Police and the State Health Department are bound to break up these centers of syphilitic and gonorrheal infection."

The venereal diseases still remain a major problem in all jurisdictions. To remove the lure of prostitution and to educate the public generally on the results of promiscuity is a major public health obligation.

HEALTH CENTER WORK—Four hundred and twenty-seven child health centers were operated during the last month, according to figures submitted by the Department's pre-school division. Ten hundred and eighty-six new babies were brought to the clinics in addition to 7,303 return visits. The follow-ups in the home by the nursing bureau personnel reached 2,679.

The increase in this type of activity, which has been decidedly progressive during the last two and one-half years, is directly traceable to the present economic situation.

A Follow-up Home Visit by a State Nurse

DISCHARGED CASES UNDER SUPERVISION—Activities in connection with the crippled children under the supervision of the Department during the last thirty days involved 164 follow-up visits of patients who had been dismissed from the Crippled Children's Hospital at Elizabethtown. Forty-four investigations were made for the Pennsylvania Society of Crippled Children and 145 surveys for other organizations.

Dr. Francis S. Chambers, medical director of the hospital, in his report recently submitted to Secretary Appel, explained that continued attention and supervision of cases that have reached the stage for dismissal from the institution are frequently required for a number of months after the child leaves the hospital. This follow-up work, largely in the hands of experienced Departmental personnel, is considered essential to a satisfactory completion of the correction.

MALARIA—For the first time in many years a number of malaria cases which could not be traced to imported infections were recently reported to the Department.

An investigation by personnel of the bureau of engineering and the bureau of health conservation has been under way for some months. The particular species of mosquito responsible for injecting this virus into the human being has already been identified in several portions of Pennsylvania. Apparently a tropical or sub-tropical insect seems to have temporarily strayed from home! Pennsylvanians can be assured, however, that there is no serious malaria problem in this Commonwealth.

RULES RELAXED ON CONTAGIOUS DEATHS—Speedy burials are no longer required in Pennsylvania, according to an announcement recently made by the Department. Dr. Theodore B. Appel, Secretary of Health, explained that the recent regulations promulgated by the Department eliminated the necessity of hurry-up activities because of the Department's desire not to inflict more inconvenience on families in which contagious diseases resulting in death have occurred, than is absolutely essential for the community's proper protection.

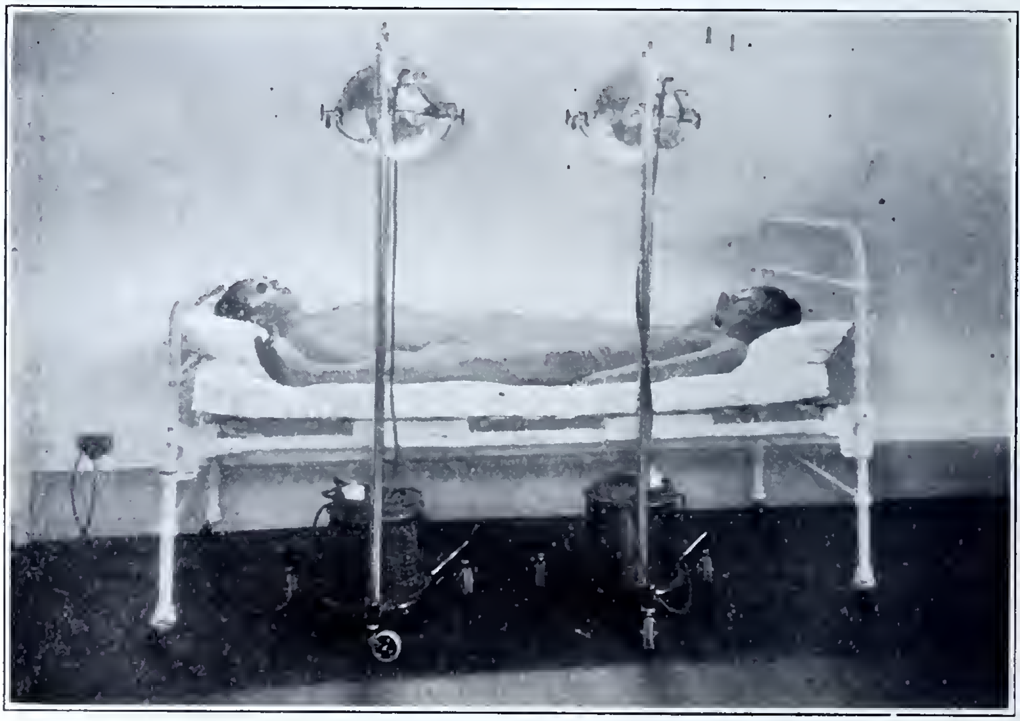
"The Advisory Health Board," said Doctor Appel, "removed the requirements calling for burial within thirty-six hours of those dying from highly contagious diseases. The Board arrived at the opinion that such a body after proper treatment by the undertaker and placed in a hermetically sealed casket is no longer a menace. Private funerals after such deaths are still required, however. There is always a possibility of the family of the deceased conveying infection to others. Improvement in burial methods had much to do with the Board's action."

DISTILLERY POLLUTION—Department engineers have been engaged for some weeks in an intensive study of distillery wastes. The study is being made to determine the method and degree of treatment necessary in localities where such wastes will affect the sources of water supply.

TUBERCULOSIS CLINICS—Three hundred and ninety-eight State tuberculosis clinics were conducted in Pennsylvania during January, according to a recent report submitted by Dr. J. B. Critchfield, chief of clinics.

Six hundred and twelve new patients were listed, 4,104 patients received advice, 355 persons were discharged, while 243 were sent to the State sanatoria, including Mont Alto, Cresson and Hamburg.

Thus is the Department ever fighting the great white plague which now having dropped from first to seventh place in the list of major killers since 1906, yet kills more people between the ages of fifteen and thirty-five than does any other affliction. Progress has been great, but a serious tuberculosis problem still remains. Complacency for past performances in this connection most positively will not pay.



Artificial Sunlight Treatment at Mont Alto

"REEFER" VENDORS IN NEW FIELDS—The "reefer" cigarette salesmen who were operating extensively in the eastern part of Pennsylvania prior to the recent law against the sale of marihuana have extended their operations to Pittsburgh and surrounding territory, according to H. V. Smith, director of the Department's narcotic division.

A number of successful prosecutions in Philadelphia was assigned as the result for decreased activity in that section and in increased activity in other parts of the Commonwealth. Prosecutions are now being made in the Pittsburgh area.

Parents should warn their children against this insidious cigarette. It is unlawful, it is dangerous, it is even a lunacy-producing article. Its peculiarly stimulating effect, unfortunately, has become an adjunct of many youthful whoopee parties. The habitual use of this weed pitably affects both mind and body of the user. The distribution and sale of marihuana represent a distinct menace to the youth of Pennsylvania today.

INDOOR SWIMMING POOLS—Representatives of the Department are now engaged in a check-up of the 300 inside swimming pools being operated throughout Pennsylvania. In order properly to protect the public, several inspections of each pool are being made. Swimming pools, both outside and inside ones, under the Department's regulations, must meet and maintain certain sanitary standards.

While it has been reported that the general condition of most pools is good, a number of improvements and changes have been recommended by the Department and promptly adopted by the operators.

DANGER IN UNCOOKED PORK—Twenty cases of trichinosis already have been reported to the Department so far this year Dr. J. Moore Campbell, director of the bureau of health conservation, recently announced. This disease is acquired by consumption of pork and pork products which are infected with a microscopic parasite and which have not been thoroughly cooked.

Doctor Campbell explained that while the vast majority of swine were perhaps free of this organism, that fact should not be relied upon for safety in the use of pork or pork products in a raw or semi-raw condition.

Some persons assume that smoked sausage, because of its palatability, may be eaten without being cooked. The experience of the Department proves conclusively that in many outbreaks of this disease this belief was responsible for them.

RESTAURANTS—The section of restaurant hygiene is now checking with boards of health on their activities in the investigation of regulations covering eating and drinking places in Pennsylvania, according to H. M. Haines, chief of the section. Boards of health delinquent in their reports are being personally visited.

"While there are many violations by restaurant owners," H. M. Haines stated, "they are comparatively small when the aggregate number of eating and drinking establishments in this Commonwealth is considered. Thanks to education and periodic inspection by local health boards and Department representatives, the majority of proprietors of eating and drinking places in Pennsylvania are entirely sympathetic with the rules and regulations adopted for the protection of the public in these establishments."

MILK REGULATION—The Department's bureau of milk control in a recent statement emphasizes several features in the new milk regulations.

Certificates for approved milk inspectors now expire on December 31st of each year, according to the statement. Applications for renewal must be made on forms approved by the Secretary of Health and must be returned to his office not later than December 15th of each year.

Pasteurized milk to be sold in this Commonwealth under that designation shall be milk which has been subjected to a temperature of not less than 143 degrees Fahrenheit for a period of not less than thirty minutes, or subjected to a temperature of not less than 160 degrees Fahrenheit for a period of not less than fifteen seconds.

The provision relative to speedy pasteurization is the new feature of this control. Whether the pasteurization is by the slow or fast method it is now required that the recording chart shall be correctly dated and shall be signed by the person directly responsible for the pasteurizing of the milk.

The Daily Check in the Laboratory Assures Safe Milk

INTERESTING STATISTICS—An interesting study just completed by the State Health Department's bureau of vital statistics shows that the year 1921 was the high peak for the birth of twins in this Commonwealth. In that year 2,614 sets of twins were born in Pennsylvania. Records for 1931 show that less than 2,000 sets of twins were born.

In the birth registration area of the United States in 1929, the last year for which reports are as yet available, one mother out of 84 had twins, one in 8,469 had triplets. During the same year, in Pennsylvania, one out of 94 had twins and one out of 7,817 mothers had triplets.

The percentage of plural births to total births, it was explained, is slightly higher among Negroes and foreign born than the native born whites. This situation is not based on a greater possibility for twins among the former classes, but because a greater number of children to the family are born to such groups.

Among the foreign born, considering mothers only, the highest percentage of plural births in Pennsylvania is found among those of Scandinavian origin, the next highest are those of Polish birth; these are followed in order by natives of Austria-Hungary, Italy, the British Isles and Russia.

OSCEOLA MILLS—Dr. G. A. Ricketts sends in a splendid report on the condition of Osceola Mills.

"Osceola Mills is a town of slightly over 2,000 population. We have about 600 children in our public schools. From November 1, 1931, to November 1, 1933, there have been only two deaths from all causes, under the age of forty-five, one baby five days old and one child two years old who died of pneumococcic meningitis. Above the age of forty-five we have had thirty-four deaths. Forty per cent died of some form of heart disease and twenty per cent died of cancer. I think that only two deaths in two years under the age of forty-five from all causes, including accidental deaths, is rather remarkable. It shows that we are taking better care of our children than we are of our adult population." Fine record, doctor!

A REAL TRIBUTE—Dr. J. Bruce McCreary, Deputy Secretary of Health, recently received a letter which among other things carried this beautiful tribute to the family doctor. "Well, here's a man, Doctor ———, he's come to my home after midnight, delivered my babies, he didn't care it was late he knew I needed care, he come to my house two o'clock in the morning because the baby took convulsions and needed care. He didn't say what a few others say, why didn't you call me in the daytime? My baby was playing in the daytime. And he's a doctor don't look to see whether rich or poor, night or day he's out doing his duty and that's the kind of a doctor we want for our children."

This lady certainly knows a real doctor when she sees one. It may be added that most family doctors living in country districts and indeed in congested areas come well within the above description. It is doubtful, however, whether the average person fully appreciates the sacrifices and worth of their medical advisor.

LONG AND FAITHFUL SERVICE—Miss Kate Brady was appointed staff nurse in the Department's bureau of nursing September 1, 1913. She recently retired after more than twenty years' continuous activity with the Department. For a number of years her headquarters have been in Butler County.

Miss Brady was an outstanding member of that outstanding organization known as the State Nurses and rendered faithful, conscientious and unusually intelligent service at all times. The best wishes of the Department go with her.

ADOPTIONS—A large number of the adoptions made in Pennsylvania each year are without the benefit of a social agency, according to a study made by the adoption committee of the Public Charities Ten-Year Program for Child Welfare. Apparently many people wishing to adopt children have never considered the advantages of taking a child from a reliable children's agency rather than from commercial maternity homes or from individuals who are well intentioned but lack the skill requisite to make careful adoption placements.

A childless couple may be irresistibly drawn to a winsome-looking baby in a hospital ward. A social study of the baby's background would perhaps reveal hereditary disease or feeblemindedness, which might result in ultimate unhappiness to both the child and its adopting parents. The sentiment of the moment prevails and the baby is taken for adoption. If in later years he becomes a problem the neighbors will probably say, "Adopted children never turn out well." Rather should we pause to ask, "Was the adoption carefully made? Is it the fault of adoption or the way the adoption was done?"

Nurses and doctors are frequently consulted about adoption. They can make a real contribution to child care in Pennsylvania by referring children needing placement and parents wishing children to a recognized agency. There are children's agencies in Pennsylvania well equipped to make adoption placements. These agencies do have desirable babies. They give adopting parents a truthful picture of the baby's family background, his present mental and physical health. They make every effort to select foster parents who will give the baby his best chance for development. This demands skill and special training. It is a job for professional social workers, not for amateurs. Help safeguard adoptions in Pennsylvania by the use of social agencies.

The address of your nearest adoption agency can be secured from Mrs. Helen Glenn Tyson, Bureau of Community Work, Department of Welfare, Harrisburg.

Vital Statistics Comment

VITAL BOOKKEEPING

Florence Hardy
Assistant Statistician

WITH the beginning of a new year, inventories and audits are made in business houses. Profits and losses are recorded, and an annual report is published.

Public health is no less important a business than the largest corporation. As in commerce and trade, a periodical accounting is essential in human welfare. The following items could be listed in the vital bookkeeping of Pennsylvania:

The birth rate has declined steadily in the past decade. At the present time, there are approximately 10,000 fewer births registered each year.

In 1920, 29 per cent of the live births in this State were to women of foreign birth, while in 1932 this ratio had fallen to 12 per cent. Italian women formed the largest group of foreign-born mothers.

Illegitimate births constitute 3 per cent of the total natality.

Over one-third of all births occur in hospitals.

Since 1929, the trend of the marriage rate in Pennsylvania has been downward.

In a recent year, 27 brides were under 15 years of age, and 45 grooms were over 75 years of age.

In 1932, the brides under 20 years of age outnumbered the grooms in that group 6 to 1.

The general death rates in the past three years were the lowest in Pennsylvania's history.

In spite of adverse economic and social conditions, the mortality in 1933 was very favorable compared with preceding years.

The infant mortality rate has been reduced over 65 per cent since 1906. In the early years of registration, 1 in every 4 deaths from all causes was an infant death, while at the present time, 1 death in every 9 is of a child under age one.

The leading causes of infant mortality in their ranking order are: diseases of early infancy, pneumonia, congenital malformations, and diarrhea and enteritis.

Substantial reductions have been made in the mortality from childhood diseases. Deaths in a single year from diphtheria, measles, poliomyelitis, scarlet fever, and whooping cough combined are fewer in number than the suicides recorded during that year.

If the 1906 diphtheria death rate had prevailed in 1932, there would have been 3,353 deaths from the disease instead of the 398 that actually occurred—a saving of 2,955 lives.

A saving of over 5,200 lives from typhoid fever has been effected.

Only 1 smallpox death has occurred in Pennsylvania since 1925.

At present, the leading causes of death in this State are: heart disease, cancer, nephritis, cerebral hemorrhage, pneumonia, and tuberculosis. In 1906, the leaders were: tuberculosis, pneumonia, heart disease, nephritis, cerebral hemorrhage, and cancer.

Today, the deaths from heart disease outnumber the combined mortality from cancer, pneumonia and tuberculosis.

Deaths from diabetes have tripled in the past quarter of a century.

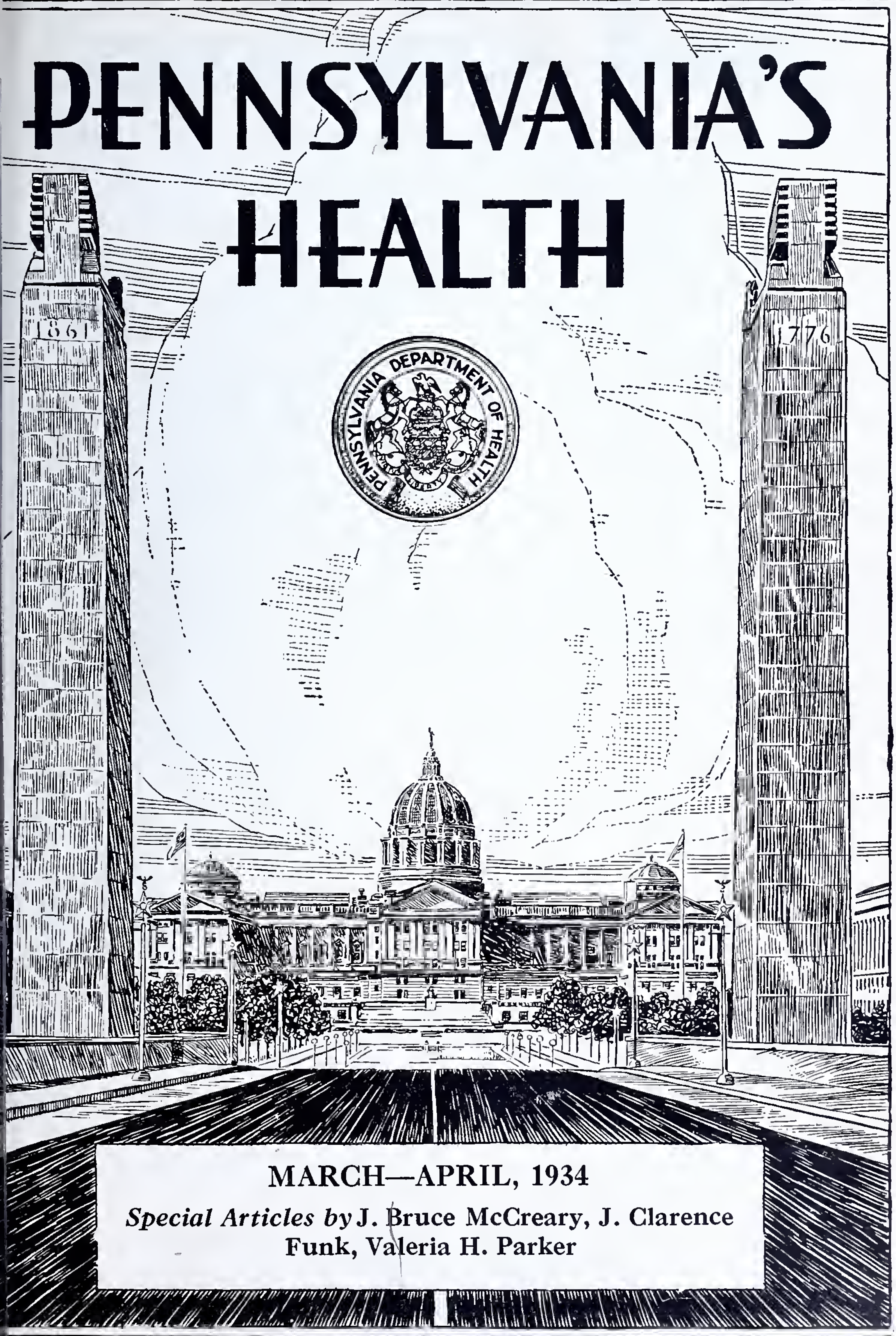
Mortality from puerperal causes has remained practically stationary, the rate varying between 10.0 and 5.8.

All accidents, taken as a single cause of death, precede tuberculosis in mortality importance.

Automobile fatalities have increased from 19 in 1906 to 2,043 in 1932.

The automobile is the leading cause of death among children from 5 to 9 years of age, inclusive.

PENNSYLVANIA'S HEALTH



MARCH—APRIL, 1934

Special Articles by J. Bruce McCreary, J. Clarence Funk, Valeria H. Parker

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13, no 2

Pennsylvania's Health

Official Bulletin of the Pennsylvania State Department of Health

THEODORE B. APPEL, M. D., Secretary of Health
J. CLARENCE FUNK, Sc. D., Editor

Vol. 12 Harrisburg, Pennsylvania, March-April, 1934 No. 2

"Acceptance for mailing at special rate of postage provided for in Section 1108, Act of October 3, 1917, authorized April 6, 1923."

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Published bi-monthly by The Pennsylvania Department of Health, Harrisburg, Pa. This Journal is free to the people of Pennsylvania. A request to the Editor, Department of Health, Harrisburg, Pennsylvania, will bring a copy of this magazine to your home without charge.

Editorial

THE WEAKEST LINK

SOME time ago a man of middle age suffered a heart attack. He was informed by the specialist that his condition was entirely functional. Nothing organically was wrong with him. A heavy smoker of inhaled tobacco, an excessive user of coffee, and somewhat over-indulgent in alcoholics, the physician emphatically indicated that his plight in all probability was directly caused by his over-affection for these stimulants. He was advised to eliminate them.

While he was in the recuperative stage, the patient conscientiously toed the mark. However, a return of his strength again influenced him to indulge in the forbidden pleasures. He is now back on a one hundred percent schedule of folly. He looks healthy. He is enjoying himself immensely. But how long will it last?

Now, strange to say, this man is carefully watching his diet, is getting sufficient rest and sleep, adheres to a walking schedule of two miles daily, and in a number of other ways is careful to abide by nature's laws. However, what he unfortunately fails to perceive is that his chain of good health deeds is only as strong as the weakest link—in his case the excessive use of stimulants. And if in a year or so he again gets an attack of angina pectoris he may have himself rather than his heart to blame.

If this were an exceptional case it might not be worth mentioning. But there are literally hundreds of thousands of persons who, in some way or other, are nullifying the effects of a self-imposed and perfectly logical health discipline.

It should be emphasized that it is not the fanatical affection for a fad, or the wise application of even a majority of the rules of health that count, but rather the reasonable adherence to *all* the dictates demanded by nature. One bad habit can, and often does, negative the salutary results of all the other good ones.

True, habits affect people in different ways. So-called tolerances markedly differ in individuals. But the point is to discover what one's physically detrimental habits are and then eliminate them. It will not do to play favorites in the health game and expect the law of averages to take up the slack.

Therefore, the sooner persons realize the old truth that a chain is only as strong as the weakest link; and by the same token that a man is likely to be only as strong as his worst habit, just that soon and not before will there be a decided reduction in the number of unnecessarily premature deaths. Remember, Achilles' heel covered little territory in comparison to the rest of his body. But the dart struck him there and finished him. Avoid vulnerability by eliminating the weakest link.

J. C. F.

THE SCHOOL HEALTH PROGRAM—ITS PLACE IN THE COMMUNITY *

J. Bruce McCreary, M. D.
Deputy Secretary of Health

THERE is no subject which has attained a more sympathetic approval, both from citizens generally and from public officials, than that of education. Indeed, few taxpayers have criticized, much less questioned, the advisability of large expenditures for schools. And public officialdom, quite properly, has viewed the problem of education as one of its major obligations.

It is quite possible, however, to permit the enthusiasm for academic enlightenment of the young to overshadow an equally important development; namely, the physical.

Preventive Medicine in the School Room

Not that the physical phases have passed by unnoticed. The interschool football games and track meets, possessing all the fanfares and coloring of the collegiate variety, are outstanding examples of a directed effort toward competitive and recreational sports, which in themselves presuppose requisite physical development and hardihood.

Then, too, gymnasiums, diet-kitchens in the form of school cafeterias, and academic health projects are further proof of the so-called health interest for school children. And these adjuncts to scholastic life are also eminently worthwhile, indeed essential.

On the other hand, professional and official experience lead to the conclusion that much yet remains to be done if the student is to receive a fair share of health protection, health information, and physical vigor to which undoubtedly he is entitled.

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*Address delivered at the annual meeting of the Pennsylvania Tuberculosis Society.

School authorities, in their very natural zest to inject learning into the heads of their charges, are likely to confront the average student with a schedule that demands much of his time and a too-continuous expenditure of mental energy.

And when to this drain upon vital resources are added those of competitive games, extra-curriculum activities, and the sleep-and-health-robbing diversions now unfortunately so much in vogue with the youth of today, we must all admit that nature is up against an exceedingly tough proposition indeed. She, therefore, needs all the scientific and medical assistance that she can command to assist her. Without it, her job in most cases cannot properly be done.

All of us are familiar with the obligations and objectives of school medical inspection and its consequent advantages.

Most of us are equally familiar with the limited way in which we have been able to carry forward this most desirable project, and how far short of the true objective we have fallen.

It must be evident to every one of us that even though housing, sanitation, lighting, gymnasiums, cafeterias, facilities for hygienic living, pupil capacity of the class rooms, and a hundred other matters definitely connected with the health of school children from an environmental standpoint, are properly controlled, the fact remains that a greater concern for the health habits of school children, both inside the building and when removed from the control of teachers, is today's outstanding school health problem.

It seems to me that there is some lack at the present time in the presentation of those fundamental facts of preventive medicine and constructive health upon the observance of which the continued health and progressive vitality of the student must rely.

Principles of Living Essential

After all, reduced to its simplest terms, education is but another term for equipment successfully to battle the problems presented by existence. A student, therefore, who in school is reasonably well protected from communicable diseases and lives in sanitary surroundings, loses much from an educational standpoint if at the same time he is not made to realize the vital necessity of reasonably obeying the dictates of nature, and thus establish a living regimen which will increase rather than destroy vitality.

As stated, the high pressure living of school children, with the heavy curriculum of today, coupled with the social demands and athletic activities, is to some extent burning up our children and making of them potential victims of tuberculosis and heart disease. This fact alone demands proper school health service—a service that will find these incipient heart lesions and tuberculosis cases and warn these children and their parents against the strenuous social life, and forbid them to gratify harmful athletic ambitions.

Until healthful conditions in school rooms become a commonplace effort; until better follow-up of defects found in the medical school inspection is established; until a complete and efficient organization for the correction of these defects by way of utilizing all agencies that may be interested in such a service is developed; and until the teaching of health and the fundamental principles underlying its maintenance, as well as those involved in the prevention of disease, reaches a standard approved by the medical profession, a vital obligation to the school youth will not have been fully discharged.

Medical School Inspection

The medical profession's interest in the public schools was first generated by a desire to obtain more knowledge in regard to epidemics and their control. The medical inspection of school children was first tried as an experiment in the control of communicable disease in Liverpool, England, in 1887. Boston in 1894 was accredited as the first American city to establish school medical inspection. New York followed in 1897, while in 1901 the first daily classroom inspection of school children was inaugurated in Philadelphia. The State of Pennsylvania made its first school medical inspections through the Department of Health in 1910.

The adoption of the Pennsylvania School Code by the legislature of 1911 placed the school districts of the State into four classes; namely, districts of the first, second, third, and fourth class. This law also made medical inspection of schools mandatory in school districts of the first and second class, but left it optional in districts of the third and fourth class. In 1919 school medical inspection was made mandatory in all districts by the legislature; Pennsylvania thus being the first State to adopt mandatory school inspection.

Medical inspection since that time has been carried out in all first, second, and third class districts. In those districts the law places the responsibility and financial obligation on the local school authorities, and in the fourth class districts directly on the State Department of Health in proportion to monies appropriated for this purpose from time to time by the legislature. Hence the inability of the Department to give a 100 percent school service in fourth class districts.

The first experimental examination in the public schools brought to light the relation of housing conditions to the control of communicable disease and the physical welfare of school children and its relation to the public health of the community.

The duties of the school medical inspector as first conceived were to control communicable disease by excluding suspicious cases and placing them under quarantine through the cooperation of the municipal health authorities.

However, physical examinations and studies of sanitation soon developed greater responsibilities. The medical inspector today not only makes the routine physical examination, but makes daily classroom inspections to detect early cases of communicable disease, and devotes a specified time each day for the examination of suspected cases. He must make a thorough study of classroom attendance, paying particular attention to absenteeism and its cause.

The sanitary inspection of school buildings and grounds has indicated that school hygiene and sanitation play an important part in the health of the student today. Therefore, it is necessary for the school inspector to have a complete knowledge of the school grounds and buildings not only from the standpoint of safety, but he must take into consideration the methods of cleaning, the pupil load of the classrooms, the heating and ventilating system, the source of water supply, the means of sewage disposal, the health program of the school as related to physical education, instruction as to diet, posture, personal hygiene, dress, and school lunches.

The largest and most available group of citizens in our Commonwealth for study of control of disease presents itself in our public and parochial school children. Time will not permit a full resume of the potential dangers to the future health of the Commonwealth which lie in the disregarded correctible physical defects in these children of our schools. Let us glance for a moment at the appalling picture which is presented in our fourth class public school districts, housing 800,000 children, to say nothing of the parochial schools with their proportion of physical handicaps.

The Dental Hygienist and the Tooth-Brush Story

Seventy-five percent or more are suffering from remediable physical defects; 80,000 retarded because of physical handicaps; only 12 percent mentally deficient; 88 percent retardation due to physical handicaps other than mental. These repeaters in the schools, together with absenteeism, cost rural school authorities 33 percent of monies expended. Ninety percent of absenteeism is due to sickness—communicable diseases and common colds. It costs the rural education, based on enrollment, $41.00 per capita; based on attendance, $51.00 per capita. One-fifth of the total per capita cost is a big price to pay for absenteeism.

Malnutrition on Increase

Let us consider but one of the many defects in child life and its consequences if neglected. The most widely distributed of the defects other than dental ones is malnutrition. During this depression beginning in 1929 this subject has been most widely discussed. Some public health officials and many lay workers contend there is no increase in malnutrition. I cannot agree with them.

What is malnutrition? No one to my mind has as yet adequately defined it. It is not a disease, but a condition—more prevalent in rural communities than in urban centers during normal times, and is due usually to improper feeding rather than by lack of food. This picture is now changed in that the greater proportion of malnutrition is found in the industrial centers which are the greatest sufferers from unemployment, and hence the prevalent lack of vitality in children is due to insufficient food rather than improper feeding. It is the duty of governmental agencies and community officials to provide the proper quantities of food, but it remains for public health workers, educators, and above all, physicians, to unite their efforts to teach the public how to prepare the proper kinds of food at the least expense.

The Department of Health is apprehensive about the possibilities of the increase of tuberculosis due to malnutrition in children. An increase in the morbidity of this disease is already shown, and is bound to continue to increase following this period of depression. The number of years over which this tuberculosis increase will last is dependent upon the rapidity with which the country assumes normal living conditions, and with what success the public is taught to provide nourishing foods at low cost.

Quarantine—A Vital Activity to Protect the Spread of Communicable Diseases Among School Children

Tuberculosis Increasing

It is a well known fact that malnutrition in childhood is conducive to the development of tuberculosis. A casual glance at the morbidity figures which show a report on tuberculosis of 58.7 in 1929; 53.5 in 1930; 52.0 in 1931 and 47.2 in 1932, with the prospect of an even lower rate for 1933, would lead to the belief that tuberculosis is under control. However, those of us who are actively engaged in the fight know that this is not the case. The tuberculosis problem in Pennsylvania, as well as in the whole country, is at present more acute than in the immediate past. The depression now existing has not as yet increased the mortality rates, but there has been a decided increase in morbidity since January 1, 1932. With an enormous increase of malnutrition in children from an average of 20 percent to more than 40 percent, a much larger number of children with tubercle bacilli will develop the active disease.

The process is slow sometimes and we will continue to see the results for years to come. Three groups of pre-school children, examined by our rural health cars, show an increase from 18 percent in 1930 to 31 percent in 1932. In school children in the same period of time there was a general increase of 33 percent. In 1929 we had an average waiting list of 686 applicants for admission to our sanatoria, including both adults and children. Notwithstanding the fact that we are caring for 500 more persons in these institutions with our present bed capacity of approximately 2500, we have had from 700 to 1500 persons on the waiting list during the past year. In spite of the fact that last year we have had a lower death rate than at any time in the history of the Department, and in spite of the fact that tuberculosis no longer heads the list of the causes of death, and in spite of the fact that the public has come to think of tuberculosis as a controlled disease, we must continue to drive home to the same public the fact that this malady continues to kill more people under thirty-five years of age than any other disease. Moreover, the malnourished children of today will not be safe from tuberculosis until they have reached the age of thirty-five. The fundamental answer to the whole problem of reducing morbidity rates in tuberculosis, heart disease and other major killers of adult life, is control of childhood infections. Two factors above all others stand out in our hope for this ultimate objective: First, the fact that the school population of a community presents the vital group distribution available for study and control; and second, adequate medical and nursing service, and a comprehensive health program in public, private and parochial schools.

The Health Gnome Says—

Achilles was a warrior
  Who was both brave and bold;
His exploits still enthrall us,
  Though they now are ages old.

But in his armor was one flaw,
  His heel was left exposed,
The poisoned dart thus found its mark—
  And a hero's life thus closed.

And so, today there are many folks,
  Who bravely fight disease;
Protected by their health habits
  Which to their minds give ease.

But they, too, have an open heel,
  An excess, here or there;
That leaves them wholly vulnerable,
  To a funereal affair.

The moral, I judge, is very clear—
  Let *all* health rules apply;
Thus ward off mortal enemies—
  'Tis better to *do* than die!

J. C. F.

SPEED, THE SLAYER *

J. Clarence Funk, Sc. D.
Chief, Health Education Division

A young man of thirty-five sits at a mammoth desk in a glass-walled office. He is the main-spring of a large factory. Obviously, and perhaps logically, he is proud of his supreme position. Nevertheless, he suddenly slumps in his chair, and dies!

For a decade he represented Speed—even yet, the dominant note in America. He played the game for high stakes, consistently won for a ten year stretch and then suddenly went broke. What this young Napoleon refused to recognize was that nature also was sitting in the game; a victim of the American tempo and his own conceit he senselessly considered himself, his habits, and his activities quite above her laws. By playing such a system he didn't even have a gambler's chance.

This case well illustrates speed's tyranny. As a matter of fact, thousands of men and women, awakened by the alarm clock, hurriedly swallow a cup of coffee, hurry along the road to work, hurry at their desks, hurry home, play until midnight or later in a hurry, and then to make a complete job of it, die in a hurry. A volatile way of living, to be sure. But a volatile way of dying also.

Results of this sizzling pace are all around us. Such, for instance, is that of the successful builder who recently was toppled off his self-made throne by death. Driven onward by his success, this man imagined that outstanding achievement marked him as the possessor of a physical hardihood far above the average. And while his conception in a measure was true, it was not sufficiently a fact to justify his subordinating his body to his work and pleasure. So, smug in the illusion of his super-power, he constantly geared himself dangerously high, and made a die of it in consequence.

Again, there is the dramatic example of the middle aged man who had experienced a meteoric career in finance and who also broke into the obituary news without the slightest kind of a warning. This fellow had a habit of boasting of his fourteen-hour business day, his three-year lack of vacations and his consistent disregard of Sundays and holidays. "You see," he would exclaim, "to be a success one must work while the other fellow loafs or sleeps." But for very clear reasons, he neglected to add that such a schedule prematurely gave Death its irrevocable opportunity.

While, of course, there are few persons able or willing to buckle down as hard as did this misguided "wizard," there are great numbers whose work and play combined will draw upon vital energy quite as inconsiderately as did the work alone in the financier's case. And it is exactly this kind of a set-up that is likely to cause injury to the most of us.

The sad case of a young architect strikingly illustrates this point. The other day he was loaded into an ambulance and carried to a nearby hospital. His pals, even his foolish little wife, had nicknamed him Speedy. Possessed of a keen intellect, he was making a name for himself in his profession, not failing however in his leisure hours to live up to his sobriquet of which, by the way, he was exceedingly proud. And so today, instead of being the man he was intended to be he is, for a time at least, leading the "simple" life in a mental hospital.

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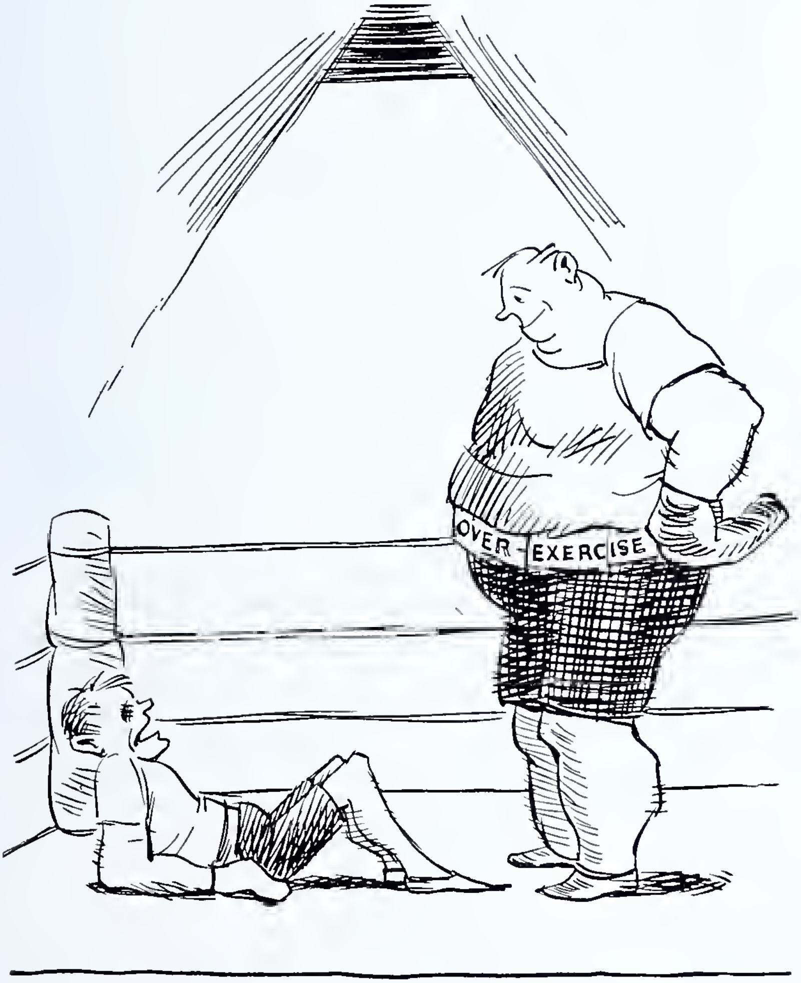
"Most of my patients are extreme examples of placing themselves beyond nature's rules," remarked the medical director of that institution. "Literally, they drove themselves full steam ahead day and night. Hundreds of others throughout the United States, wrecked in mind and body by the present cruel pace annually develop a sudden affection for a revolver trigger and thus miss hospitals like this one by a hair. Drug addiction gets many more. And finally, the undertakers come in for a big share of advance business. Top speed has a lot to answer for."



A Form of Speed to Be Avoided

While he was talking, a face appeared at a window. It was a fine one but for the silly grin. "That man is fifty-two years old," announced the neurologist. "He was the superintendent of a large mill. A splendid fellow! But his work involved a killing pace and his vacations were similarly speeded up. Trying to play both ends against the middle, he naturally couldn't make the grade."

However, one need not go to funeral parlors, psychopathic hospitals, sanatoria, or physician's offices to prove the case against speed. As a matter of fact, one has but to look around among his acquaintances, or perhaps peer into the mirror, to realize that the modern driving force is taking an unjustifiable toll. Indeed, few who are honest with themselves will deny that they consider it to be exceedingly smart to step on the gas. To do, rather than to live, appears to be the popular psychology. Consequently, "Let's go!" is the almost universal cry.

But this foolish affection for velocity is beginning to see opposition to its murderous activities. The present, being what it is, has developed much excusable introspection with a consequent sharpening of the value sense. "Time out" has been taken to do some pondering. Consequently, there are many who are beginning to doubt whether, after all, full speed ahead is the one and only thing in life.

Thus it is that thoughtful persons are realizing more than ever that the white-hot, nerve-racking, life-burdening pace of the majority demands more of the body than it healthily can give.

Indeed, quiet investigation reveals that many persons, hitherto ardent followers of speed's imperious dictates, now consider that their most important job is to get fit and stay that way. They are leaving the long office day, the short sleeping night, and excesses to others.

Even among American youngsters, who have certainly not possessed an outstanding reputation for a snail-like pace, there are many who realize that the maddening pursuit of the thrill is a backfiring Will o' the Wisp. Many of them are therefore revolting against the seduction of speed's false tune, and thus refuse to be led by it down the road to illness or a curtailed life. In this connection the shrines of Physical Fitness, Supervised Athletics, Competitive Sports and Back To Reasonable Living are daily attracting an increasing number of young devotees.

To such as these, a healthy mind and a healthy body mean much. They refuse to be taken in by the neurotic and unnatural attractions to which many of their contemporaries succumb. Broken bodies, "nerves," bad habits and unhappiness represent prices quite beyond their present willingness to pay.

In recently discussing the speed problem with one of the leading executives of the nation's furniture industry he reflected this reassuring attitude of thoughtful middle age. "My business," said he, "demands that I listen to nature. But I would do so anyway. This world, in my opinion, is worthy of my continued presence. I don't intend to do anything that will shorten my stay in it if I can help it. Moreover, I appreciate my physical limitations. Therefore, while full speed ahead is the law of my machines, I myself run on a lower gear, occasional spurts excepted. I can purchase other equipment when that in my factory wears out, but I have as yet failed to locate any market where I can buy a new heart or other vital body part."

Indeed, the worth-while household names of the moment almost without exception stand for a life of well planned work and moderation in all things. It can safely be said that full speed ahead, while wisely employed, never has been nor never will be the controlling force in the lives of successful men and women. To them temperateness and a consistently regulated pace represent the unbreakable law.

The case against speed was recently very admirably summed up by one of the leading health educators of the country. "Life," said he, "is a magnificent adventure. But it is also full of alluring temptations. Never has it been easier or more socially accepted to outrage the body through countless follies than it is today. And never have there been so many unthinking men and women quite as eager to exchange their bodily and mental health for money or a good time as there are right now. To drive on the body relentlessly is to many an indication of worthy ambition. Such people apparently do not realize the crushing heartlessness of uncontrolled speed. Slavishly to worship it means loss of health, loss of happiness and not infrequently loss of life itself."

Common Sense Living Keeps Speed in Its Proper Place

The issue therefore seems to be clear cut. It is one of common sense versus folly; health versus illness; happiness versus sorrow; long life versus a short one. Philosophers may extol moderation and relaxation; health officials and physicians may plead against cyclonic living. But the individual alone can choose.

The question simply resolves into this: Full speed ahead and a smash. Or sensibly regulated moderation and a fair chance for a happy, long life. Which shall it be?

THE PREVENTION OF CONGENITAL SYPHILIS

Valeria H. Parker, M. D.
American Social Hygiene Association

IT is a terrible fact that practically all actively syphilitic pregnant women will, without treatment, bear dead or syphilitic children. The prevention of such a catastrophe is, fortunately, a comparatively simple problem. Virtually all pregnant syphilitic women receiving timely and adequate treatment during pregnancy will bear non-syphilitic, healthy children. The prevention of congenital syphilis is mainly within our grasp.

How extensive a problem is congenital syphilis? Statistical studies indicate that syphilis is discoverable in 8 to 10 per cent of pregnant women of the "dispensary class." In a series of prenatal clinics in which routine Wassermann tests were made, from 3 to 23 per cent of the patients were found to be syphilitic, varying according to the social and economic status of the patients. Reports from various clinics indicate that of the children under one year of age coming to the clinics, from about 5 to 6 per cent have congenital syphilis. For children over one year of age the percentage drops to less than 2, emphasizing the very high mortality rate of infantile syphilis. The problem is serious and it is extensive.

Let us note a few of the known facts about congenital syphilis. The infection is transmitted to the fetus through the blood stream of the mother. Once the spirochete reaches the fetus there follows rapidly a generalized distribution to which the immature tissues can make little resistance. As a consequence of the infection the child may be born dead; if born alive it runs a large chance of death within a few weeks or months or within a year; of those surviving beyond that time many will die within five years; and those still living may be physically and mentally blighted, always with the prospect of late crippling or killing effects. From their studies and those of others, Jeans and Cooke derive the following summary results:

> Approximately 25 per cent of all pregnancies in untreated syphilitic families resulted in miscarriage or stillbirth.
>
> Approximately 20 per cent resulted in living births, the children of which later died.
>
> Approximately 40 per cent of the pregnancies resulted in children who were living and syphilitic at the time of the survey.
>
> Approximately 15 per cent of the pregnancies resulted in children who were living and non-syphilitic.

The evidence is that in the majority of cases the fetus is infected during the latter half of pregnancy. This is a fact favorable to prevention, for it leaves these early months as opportunity to come under medical supervision and preventive treatment. Once the infection of the fetus has taken place, treatment of the mother cannot protect the child.

Prompt Discovery Essential

The problem of the timely discovery of syphilis in the pregnant woman is complicated by the fact that syphilis tends somewhere in its course to become latent, no clinical manifestation of the disease appearing, often for many years. Not infrequently even the Wassermann blood test is negative at such times. There is nothing to suggest the possible syphilitic infection. Yet in such periods of latency the husband may infect the wife, and the wife in a latent period is likely to infect the child before birth. Pregnancy itself tends to have an inhibiting effect upon syphilis in the woman, keeping her free from manifestations which might bring the disease to recognition. It is for these reasons that the outward appearance of syphilis cannot alone be relied upon to discover the disease in pregnant women. The blood test must be added to our diagnostic measures. It is found that in maternity clinics in which clinical evidence is alone relied upon, at least 50 per cent of syphilitic infections will be missed.

Most living syphilitic infants do not show evidence of the disease at birth. When it does manifest itself so early it usually means a particularly virulent infection. Stokes says, "The sooner the symptoms appear the more serious the prognosis." In about two-thirds of syphilitic infants clinical manifestations appear within the first two months, and in but few cases are they delayed beyond six months.

The obvious manifestations of infantile syphilis are chiefly those of the skin, mucous membranes and bones, and to some small extent of the nervous system. The skin and mucous membrane effects predominate. Occasionally the eye is involved. After the disappearance of early skin eruption there may be a recurrence of a variety of different types of syphilitic manifestations.

The manifestations of late congenital syphilis, occurring mostly between the ages of two and fifteen, are chiefly eye lesions, usually keratitis; neuro-syphilis; bone and joint syphilis; gummata and deafness. In one clinic, 63 per cent of the children over five years of age with clinically active syphilis had keratitis. Among all the manifestations of late congenital syphilis, neuro-syphilis (syphilis of the nervous system) is, of course, the most important, for by the time that neuro-syphilis is clinically recognizable, the damage already done is beyond repair. Motor paralysis and mental deterioration are usually the most prominent indications. Syphilitic dementia, paralysis of the insane, and sometimes tabes dorsalis (locomotor ataxia) are the extreme consequences.

Practically all syphilitic infections in children become latent at some period during the disease and the period of symptom-free latency may continue for a number of years. In the Jeans and Cooke series more than half of the syphilitic children beyond infancy manifested no signs of clinical activity when the child was first seen.

With modern methods of treatment the prognosis of congenital syphilis is fairly good when thorough treatment can be instituted during the first year. The earlier treatment is begun the more favorable is the prognosis. Delay of treatment into the second year of age very greatly diminishes the chances of recovery. Even at best the problem of the congenitally syphilitic child is a very grave one. The long period of time required for adequate active treatment, one to two years or more, is a seriously complicating factor. The urgency and the hope lie in measures for the prevention of congenital syphilis. Here we are on assured ground. We know that if syphilitic pregnant women can be brought under treatment by the middle of pregnancy, the transmission of the infection to the child can be prevented in at least 95 per cent of cases.

The data of Laurent on 213 women studied before and after they had treatment are impressive. Of the pregnancies occurring without treatment, 74 per cent terminated fatally for the child; 26 per cent were alive at three months. Of those alive probably at least one-half will die in the first five years, and many of those surviving infancy will show the stigmata of congenital syphilis. Only a few of them will be apparently normal. With treatment the pregnancies of these same women terminated as follows: Nearly 92 per cent were alive at three months; only 8 per cent terminated fatally for the child. And of those alive it is probable that all will be healthy, non-syphilitic children.

Among the measures for prevention are mentioned the prevention of marriage when one of the parties is syphilitic, and the prevention of pregnancy in marriage in which syphilis occurs, also prevention of infection of one married partner by another. Such measures may well receive consideration in individual cases, but no great reliance can be placed in them at present for general application. The problem becomes essentially one of discovering and treating syphilis in pregnant women. Since in the majority of cases clinical and historical evidence of the disease is lacking, the solution resolves itself primarily into (one of applying) the application of one or more of the recognized blood tests to all pregnant women in hospitals, in clinics and in private practice. Early diagnosis and early adequate treatment of syphilis in pregnant women are the essential steps in the strategy of attack upon congenital syphilis.

First-class hospitals and clinics are increasingly adopting the practice of routinely making a Wassermann, Kahn or other blood test upon all pregnant women who come to them, and of bringing under anti-syphilitic treatment those who have positive reactions. When this practice shall have become general, we will be a long way on in our fight against congenital syphilis.

The Medical Practitioner's Part

There remains, however, the general medical practitioner in reference to it. The reluctance of some practitioners to play their part in this problem of preventive medicine by adopting the custom of making blood tests upon all private pregnant patients, is an obstacle to progress toward the conquest of congenital syphilis. The reasons commonly given for this reluctance break down when we consider the issues at stake. Laboratory service for making the tests is rather generally available. The doctor's fear of offending his patient by making a blood test is not well grounded. He makes blood tests for a variety of other purposes and without always explaining to his patients in detail what it is about. So in this case a blood test may be included in the general examination of the pregnant woman without explaining the exact purpose of the test. Indeed, is he not obligated to protect his patient and her family by means of the blood test, against the possible transmission of syphilis to the unborn child, and against the consequences of syphilis in herself? Syphilis is no respector of persons or of class. It occurs in all walks of society, and this fact justifies the making of routine blood tests in private medical practice.

The anti-syphilitic treatment of the pregnant woman is primarily for the protection of the child. Following birth her treatments need to be continued adequately to secure a definite arrest of the disease in her. And even though treated, she should receive prophylactic treatment in all subsequent pregnancies for the assured protection of her progeny.

There is needed, of course, a great acceleration of public education about syphilis in order to bring about the same intelligent cooperation on the part of the rank and file of citizens as has been brought about, for example, in relation to tuberculosis. In such education the public health nurse in her friendly contacts with family groups can play an important part. The means for the conquest of congenital syphilis are at hand. The problem remains one of their application.

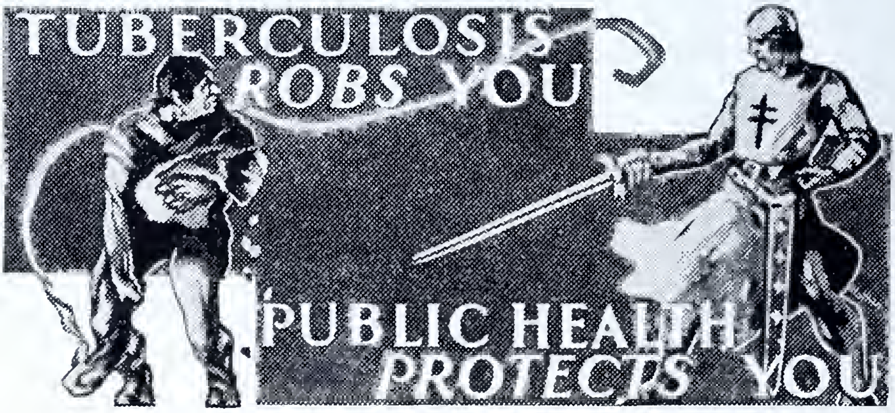
Syphilis is peculiarly a familial disease. It affects the patient not only as an individual, but as a member of the family group. If the wife is found to be syphilitic it becomes important at once that the husband be examined also and treated if found infected. In the great majority of cases she will have received the infection from him. If there are children, they too must promptly undergo examination and receive the benefit of treatment if found to have the disease. In this search for infection among the contacts of the syphilitic individual, with a view to bringing all possible cases under treatment, lies the most effective weapon for the public health fight against the disease.

PUBLIC HEALTH AND TUBERCULOSIS

Ira E. Foutz
Publicity Secretary, Pennsylvania Tuberculosis Society

ONE important aim of the 1934 campaign for the Early Diagnosis of Tuberculosis is to indict tuberculosis as a public enemy. The second section of the slogan just given is meant to emphasize that this enemy cannot be fought single-handed. Group action is needed and this can be accomplished through public health measures.

This year's effort of the tuberculosis societies can be termed a health recovery campaign. During the past few years of worry and strain our health efforts and machinery have suffered severely. Public health appropriations and many health activities have been curtailed severely. In line with the effort to rebuild the social and economic structures it is vital that recovery go forward in public health measures, including control of tuberculosis.



Christmas Seals Finance the Campaign Against Tuberculosis

Certain standards are set by health authorities which are essential for every community. It is not a matter of guess work, therefore, whether or not a community meets its needs in health work. Individuals cannot protect children from communicable diseases, provide adequate nursing service or safeguard the milk supply. This means that individual citizens must be brought to appreciate the value of general health measures, as well as special needs to be met. If this goal is not reached a serious depletion of health resources will result from the economic situation and many years will be required for health recovery.

Tuberculosis control is closely connected with the general public health program. A clean milk supply, adequate meat inspection and cattle testing are valiant allies in the fight on the White Plague. When infant care, child welfare and maternity care, when school health work and when nursing are diminished in the work of the Health Department, the Department of Education and voluntary groups conducting certain projects, it will be found that the failure of tuberculosis prevention efforts will be among the ills accompanying failure of the public health campaign generally.

The steady decline in the tuberculosis death rate has engendered a complacency which is dangerous. A preventable disease which takes about 5,000 lives annually in Pennsylvania and finds most of its victims before the age of 45 is a real enemy. Some bills in the indictment of this age-old enemy follow:

> "Cruelly deforms young children."
>
> "Ruins the ambitions of the youth."
>
> "Saps the worker of his earning capacity."
>
> "Brings heartache into the household."
>
> "Destroys life ruthlessly."
>
> "Threatens all people so long as there is a single case of tuberculosis in the community."

Is YOUR Armor On for the Fight?

"The ruin and waste of this public enemy is not paid for only by those whom it attacks. All of us share in the cost. For instance, more than 400 million dollars was paid out in compensation for tuberculosis to world war veterans alone from 1923 to 1932. Taxes paid that bill—your taxes.

"Tuberculosis makes orphans. You and I must care for them. The care of the tuberculous sick is an expense usually too great for the individual sufferer to bear, so we, as a community, must pay the bill. Yet the money cost is only part of the loss. What about the distress and fears all of us must share in so long as tuberculosis hangs over us?"

The National Tuberculosis Association, which arranges and conducts this nation-wide campaign, summarizes the purpose this year as follows:

To increase the general public's appreciation of the benefits it derives from goood public health services with emphasis on the official health department's work, and its needs.

To cause the public to demand adequate public health service.

To coordinate with the health department the efforts of all voluntary health agencies, as well as civic organizations, clubs, and outstanding individuals to the above ends.

In Pennsylvania the campaign is carried out by the Pennsylvania Tuberculosis Society and its affiliated organizations in cooperation with official health agencies, physicians, community leaders and various health and welfare organizations.

DEPARTMENT NEWS

WORK COMPLETED—The remodelling of the infirmary at Mont Alto was recently completed. Improvements involve the installation of an examination and treatment clinic, which includes an operating suite, dental facilities, x-ray and artificial sunlight equipment. The infirmary now represents one of the most modern units for the treatment of tuberculosis in the Commonwealth.

NARCOTIC FORGERS—An epidemic of forged narcotic prescriptions recently resulted in intensive activity by representatives of the Department's narcotic bureau in several sections of the State. Fifteen arrests have been made within the past few weeks. Evidence has been obtained upon which to base other prosecutions in the near future.

"A number of out-of-state addicts have been victimizing druggists in the larger cities of Pennsylvania by obtaining prescription blanks from physicians and forging their signatures for narcotics," explained Harold V. Smith, chief of the narcotic division.

"Druggists are advised to scrutinize all prescriptions that are presented on blanks not carrying a doctor's printed name. Investigation indicates that a number of prescriptions written on blank pieces of paper have been presented successfully and narcotics thus illegally obtained."

Both the United States Government and the respective States are constantly making it more difficult for the so-called "pure addict" to obtain drugs illegally. Consistent and persistent efforts by the Department's division of narcotic control are showing excellent results. Manufacture of these habit forming drugs beyond the medicinal requirements, especially by foreign countries, makes this problem a very difficult one to solve.

POOL TREATMENT FOR INFANTILE PARALYSIS—The Department recently completed facilities at the two swimming pools at Mont Alto and Cresson sanatoria for the treatment of the secondary stage of infantile paralysis.

"The facilities made available," stated Secretary of Health Appel, "follow the general plan of the equipment used in the therapeutic exercise pools at Warm Springs, Georgia. The devices were constructed and assembled under the direction of the Department's maintenance engineers, with a minimum monetary outlay.

"These pools will provide treatment facilities for fifteen patients at each institution. It is the Department's purpose to develop facilities and technique with this equipment looking forward to the establishment of a therapeutic pool at the Hospital for Crippled Children at Elizabethtown. Only, however, after information has accumulated and funds for this reconstructive therapy become available.

"During the first three or four months," explained Dr. Appel, "victims of infantile paralysis should be kept quiet, particularly with reference to the limb affected. However, after that time it has been definitely proved that exercise and passive motion under water are of decided value. The experience of the sanatorium at Warm Springs, beyond doubt, has proved the benefit of this type of treatment. It is now generally recognized by the medical profession. Unquestionably, many crippled children in Pennsylvania who have been infantile paralysis victims will be relieved in varying degrees from their impairment by making this type of treatment available."

NAMED CHAIRMAN—Dr. Mary Riggs Noble, chief of the preschool division, has been appointed State chairman for the summer roundup conducted annually during the spring and summer months by the Parent-Teacher Association through its various county branches.

This work is a cooperative one in connection with the yearly May Day Health Day spring drive of which Dr. Noble is active State chairman. Reports already received by the Department indicate that the many organizations throughout the Commonwealth interested in this state-wide drive to conserve the health of children have their plans already developed in detail.

The value of this annual activity to the growing generation is literally incalculable.

Taking Health to Remote Sections is Real Missionary Work

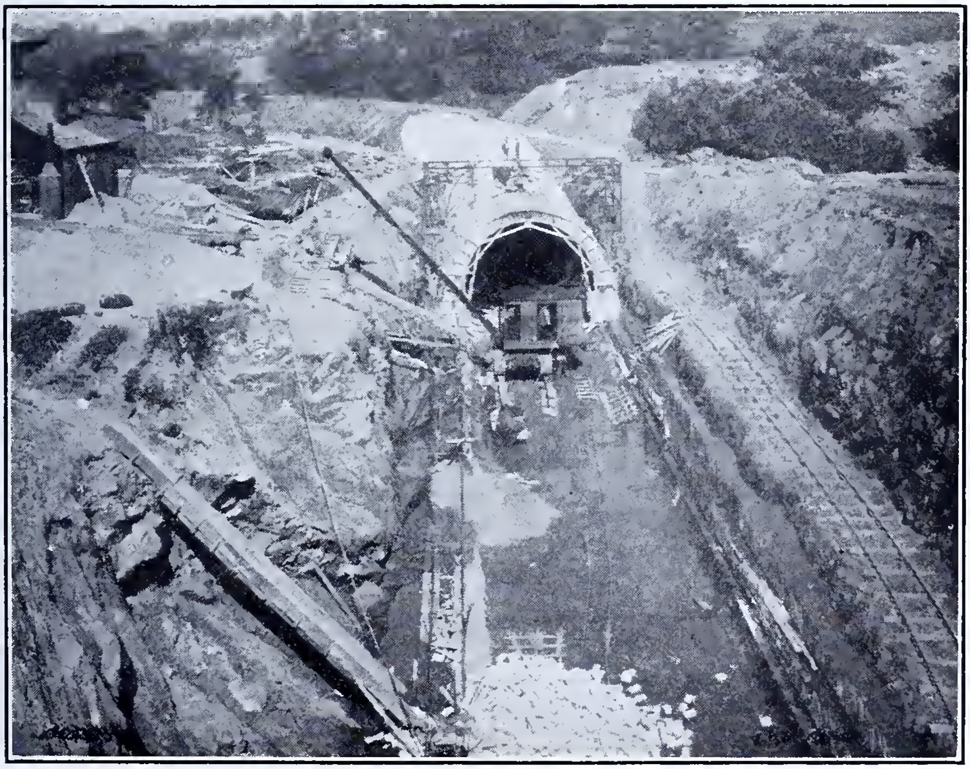
PROTECTING FISH—Scientific studies at the Pleasant Mount, Wayne county, fish hatchery to determine the effect on fish life of different industrial wastes are now being made under the direction of the Department with the cooperation of the State Board of Fish Commissioners, it was recently announced.

Representative samples are being taken from typical industries throughout the Commonwealth and experiments with the fish are being made through the installation of special equipment to study the behavior of fish, length of life, and manner in which they die under conditions simulating those in the various streams subjected to industrial pollution.

C. L. Siebert, engineer for the Sanitary Water Board states that while data on the effect of pollution is already on file as a result of experiments made in different parts of the world, the results lack uniformity and application to the situation existing in Pennsylvania. Investigations thus far completed, according to Siebert, can definitely reduce the objectionable characteristics of wastes now affecting fish life.

Investigations include wastes from dye works, gas works, by-product coke plants, oil refineries, wood distilling plants, breweries, distilleries, and pulp and paper mills.

SEALING MINES—The sealing of mines in the bituminous fields is rapidly progressing, according to recent reports. This work originated as a Federal Civil Works project under the direction of the United States Public Health Service and involve the employment of 2600 formerly unemployed miners. It is now a State CWA activity. This project was advocated by the State Health Commissioners of the Ohio River Basin in which territory exists most of the abandoned coal mines which pour acid drainage into streams used below as sources of public water supply.



Many CWA Projects are Health Protectors

While the work has as its objective the protection of public water supplies, the reduction of acidity attained by sealing abandoned mines will also be a benefit to the recreational use of streams.

The principle involved in the sealing of abandoned coal mines was evolved by Department engineers. For the past four years the Department has demonstrated the practicability of the plan. In fact, it was largely upon the Pennsylvania experience that the whole Federal project was based.

FEARED DISEASES HELD IN CONTROL—A low record year for several of the most feared diseases including diphtheria, smallpox and typhoid fever was experienced in 1933, according to Dr. J. Moore Campbell, chief of the bureau of health conservation.

Not one case of smallpox was reported. Dr. Campbell said the lack of itinerant labor from so-called smallpox sections, owing to a let-down in industry, is one of the main reasons for this unusual record.

But 1116 typhoid fever cases were reported during 1933 as against 1261 for 1929 which, until last year, was the record for the Department. Dr. Campbell attributes this satisfactory condition to copious water supplies and a minimum of traveling to other places where less control over typhoid exists, particularly in rural sections.

Diphtheria also reached a new level of 3089 in 1933. This figure represents an uninterrupted and marked annual decline in this disease which began in 1922 when 16,617 cases were reported.

SANITARY HELP FOR MINING TOWNS—Counties in the bituminous field were recently covered by 25 supervisors and 900 laborers who built sanitary facilities for mining towns lacking adequate equipment.

This work, now on a restricted basis, is being supervised by the Department of Health at the direction of the U.S. Public Health Service. Employment costs are now covered by State CWA allotments, while an agreement with the coal companies involved has resulted in these organizations furnishing the necessary material for the erection of the structures.

This is another definite step against typhoid fever, infant mortality, and stream pollution.

HEART CLINICS—Thirty-six heart clinics supervised by the Department were held in the last four weeks, according to a report recently submitted to the Secretary of Health. This activity, while at the present time confined to several localities in the eastern section of the Commonwealth, has proved its value in rendering advice and assistance to the unemployed suffering from cardiac ailments.

The consistent increase in deaths and impairments from heart conditions represents one of the major problems confronting public health officials at the present time.

"Mass control of diseases, such as typhoid fever and diphtheria, have eliminated hazards which thirty years ago were killing thousands annually," states Dr. J. Bruce McCreary, Deputy Secretary of Health.

"And however gratifying the results of public health efforts along these lines have been and continue to be, the alarming increase in deaths and crippled conditions directly traceable to heart ailments has developed serious concern on the part of health authorities.

"Unfortunately, no public control of the situation is available inasmuch as personal habits, physical check-ups and the speed of the present day are all highly individualistic matters which demand the conscientious attention of the unsupervised adult. Such attention cannot be afforded unless the individual himself is sufficiently interested in his own physical welfare to submit to investigations regularly by competent physicians, even though be believes himself to be in perfect health.

"The State heart clinics, which of course are emphatically limited to those persons who are unable to pay even a minimum charge for services of this type, have in many cases proved the life-saving and disease-preventing powers of personal inquiry into one's state of health at a time when no suspicion of trouble exists in the mind of the patient.

"Undoubtedly when the average adult can be made sufficiently aware of the possible damage which may be accomplished without his being conscious of any interruption in his physical make-up, crippling and killing heart disease can be diminished, but not before," concluded Dr. McCreary.

"Have a heart" for your heart!

CHECKING C. C. C. WATER SUPPLIES—Engineers of the Department, in connection with the mobile laboratory which has been in constant use for bacteriological and pathological examinations at the C. C. C. camps, are checking regularly on the condition of the water supplies.

Samples of the drinking water are taken every three months and tested on the spot. One hundred and eight camps with an approximate population of 25,000 are thus being supervised by the Department.

Milk Inspection at the Source of Supply

CAT AND DOG MILK—Governor Pinchot signed the law amending the milk control law in Pennsylvania which eliminates the words "for human consumption" appearing in the original legislation.

Investigators discovered numerous instances of milk dealers selling so-called cat and dog milk. While the investigations undoubtedly indicated that this product was not being bought for animals but for human use, there was no way legally to control the sanitary standards of such milk. As a matter of fact it was being produced under conditions which represented potential and in numerous cases actual menaces to health.

The recent amendment signed by the Governor now places all milk for whatever alleged purpose under the direct control of the State Health Department thus making such subterfuges as cat and dog milk no longer possible.

G-U WORK—The Reading genito-urinary clinic located in the Homeopathic Hospital, Dr. E. K. Golding, chief, has had a rapid growth during the past several years. During the year 1933 there were 6,780 treatments given by use of the hypodermic needle. The increase in the growth of this clinic apparently is due to the inability of persons to pay for private treatment. On the other hand, the number of patients who are receiving treatments in this clinic is proof that the manner and type of treatment is eminently satisfactory.

ANNUAL MEETING PENNSYLVANIA STATE DENTAL SOCIETY—The Pennsylvania State Dental Society will hold its Sixty-sixth Annual Meeting at the William Penn Hotel, Pittsburgh, on May 1, 2 and 3, 1934. A full program of papers and demonstrations has been arranged, as well as inovations.

In addition to the scientific features, an attractive social program for members and those accompanying them has been developed. A cordial invitation has been extended to all dentists who are members of the American Dental Association to attend this conference.

MOTHER'S DAY—May 13th is to be observed by women's clubs, men's clubs, medical societies, chambers of commerce and other professional and civic groups which will join in community efforts throughout the nation to "Make Motherhood Safe for Mothers."

"An important step forward is to be taken this year," states Mrs. Shepard Krech, President, Maternity Center Association, New York City, which organization is nationally directing this movement.

"In three previous Mother's Day Campaigns the effort was to arouse the public to the importance of the fact that two-thirds of the maternity deaths are preventable; that 10,000 of the 16,000 women who annually die in childbirth could be saved. The next move, which is to be taken this year, is to do something specific and definite about it, with groups working in every community. Only by appraisal of maternity facilities in every community, and study of their quality, can the great step forward be taken."

It is understood that appraisal blanks as well as programs for group meetings and publicity material for local Mother's Day Campaigns may be obtained by addressing the Maternity Center Association, 1 East 57th Street, New York City.

PENNSYLVANIA PUBLIC HEALTH ASSOCIATION MEETING—The annual meeting of the Pennsylvania Public Health Association will be held at the Warwick Hotel, South 17th Street, Philadelphia, on May 23rd and 24th. The officers of the Association have made every effort to develop an unusually fine scientific program and at the same time have not lost sight of the recreational and social features. Programs will be mailed to the membership early in May.

This being the tenth anniversary of the Association, exceptional efforts are being made to develop the most outstanding meeting in the Association's history. Don't miss it!

TUBERCULOSIS SOCIETY'S RESOLUTION—The following resolution speaks for itself:

"RESOLVED, That in looking toward the next session of the General Assembly when appropriations for Governmental services will be determined, it be urged upon the Governor and all members of the General Assembly that it be definitely and certainly planned that the Department of Health shall be provided with funds sufficient to assure no further curtailment of its services.

"It is safe to believe that the favorable position of Pennsylvania with regard to the public health at this time as indicated by the lowest death rate in the history of the State Bureau of Vital Statistics is due largely to the disease prevention and health promotion services provided by the Commonwealth to its people through the Department of Health. The health safeguards built up and the services established must be maintained even if at the sacrifice of some other Government activities. The provision of adequate and effective public health service, in accordance with present-day needs and standards, is the first responsibility of the State and of every municipality."

NATIONAL RED CROSS TEACHER TRAINING COURSES—The National Red Cross Teacher Training Courses for instructors in home hygiene and care of the sick will be held again this summer in cooperation with four universities and colleges. The universities and dates on which courses are being held respectively are: University of California, Los Angeles, Cal., (For nurses in the Pacific area), June 29-August 10; Pennsylvania State College, State College, Pa., July 2-August 10; Syracuse University, Syracuse, New York, July 2-August 10; Colorado Agricultural College, Fort Collins, Col., July 7-August 17.

For further information write to Miss I. Malinde Havey, National Director, Public Health Nursing and Home Hygiene, American Red Cross, Washington, D. C., or to the Branch Office in St. Louis, Missouri, or San Francisco, California.

Vital Statistics Comment

PROVISIONAL MORBIDITY IN PENNSYLVANIA: 1933

Anna Halkovich
Bureau Vital Statistics

ALTHOUGH final reports for morbidity in the Commonwealth are not yet available, provisional figures indicate that the number of reported cases of communicable diseases declined in 1933, as compared with the record of preceding years.

It is very gratifying to note that the incidence of childhood diseases generally has decreased. This fact, however, is no cause for a let-up in the campaign against the physical dangers to child life.

A glance at the Commonwealth's health ledger for last year directs attention to the fact that:

Infantile paralysis with its 335 cases and a rate of 3.4 per 100,000 population has fallen off appreciably, as compared with the two previous years. In 1932 there were 1,111 cases recorded, giving a rate of 11.3. In 1931 there were 412 cases with a rate of 4.2.

The trend of diphtheria morbidity in 1933 was favorable in that the 2,804 cases and the rate of 28.3 per 100,000 population was the lowest since 1906. There were 4,383 diphtheria cases and a rate of 44.6 in 1932, and 4,545 cases with a rate of 46.7 in 1931.

Measles cases in 1933 were lower than those recorded for the past five years. The 1933 total and rate from this disease were 27,638 and 278.6 respectively. In the preceding year there were recorded 46,647 cases and a rate of 474.5 per 100,000 population. Cases and rate in 1931 were 80,937 and 830.8.

Scarlet fever cases, although lower, have not decreased materially. With the exception of 1932 when 25,600 cases were reported, the total of 24,522 cases in 1933 was the highest since 1906.

Typhoid fever cases, too, are on the favorable side of the health ledger. There were 804 cases, with a rate of 8.1 per 100,000 population, in 1933. This is the lowest number of cases reported from this disease since 1906. In 1932 there were 1,421 cases and a rate of 14.5; in 1931 there were 1,551 cases and a rate of 15.9.

The total of 10,948 whooping cough cases and a rate of 110.4 (per 100,000 population) were lower as compared with the two preceding years. There were 24,873 cases and a rate of 253.0 in 1932, while there were 16,366 cases with a rate of 168.0 in 1931.

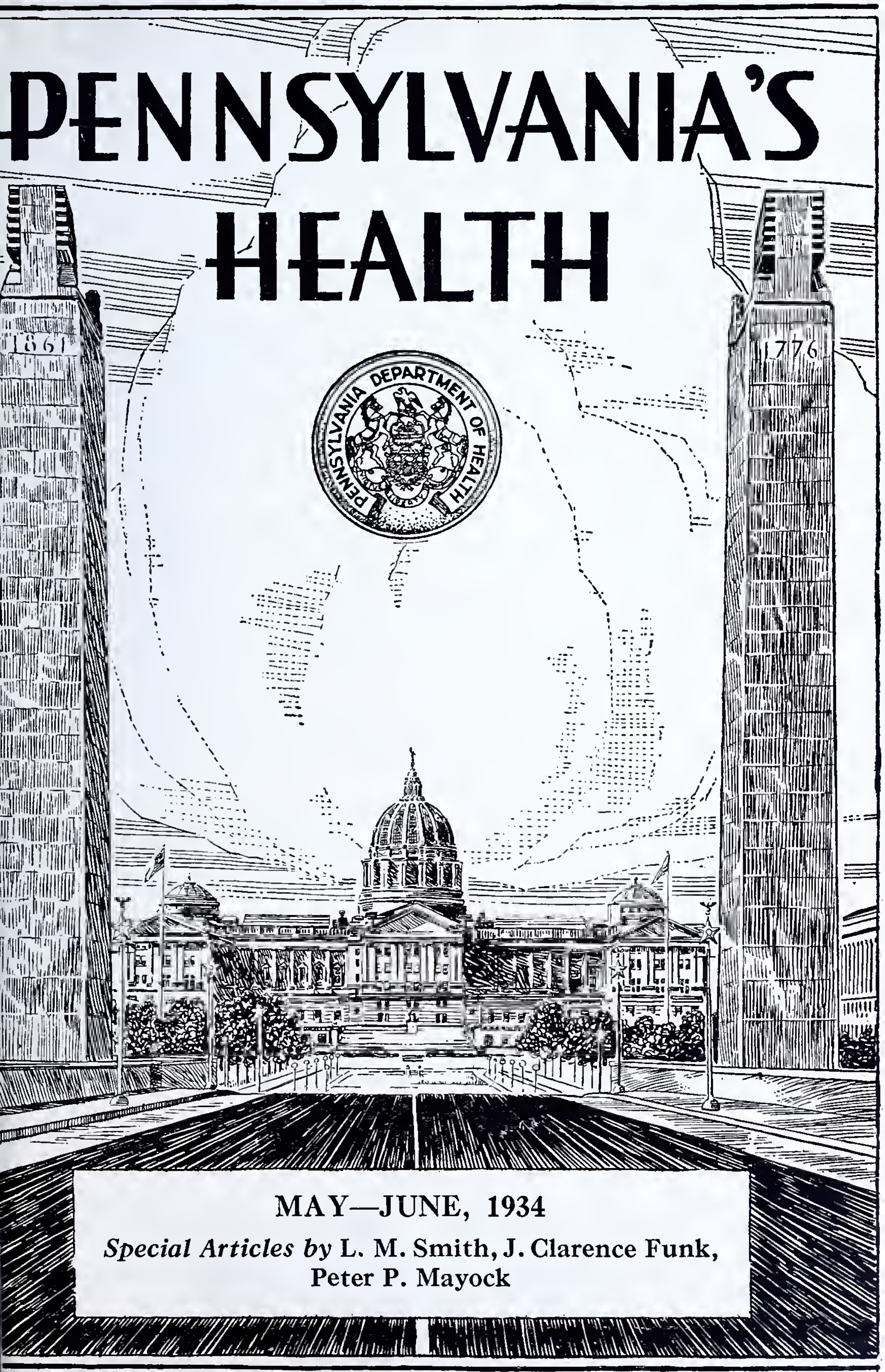
MORBIDITY IN PENNSYLVANIA: 1933, 1932, 1931

	1933		1932		1931	
	Cases	Rate*	Cases	Rate*	Cases	Rate*
Actinomycosis	1	(a)	2	(a)	1	(a)
Anterior Poliomyelitis	335	3.4	1,111	11.3	412	4.2
Anthrax	9	.1	3	(a)	8	.1
Cerebrospinal Meningitis, Epidemic	166	1.7	280	2.8	458	4.7
Chicken-pox	28,846	290.8	29,323	298.3	29,243	300.2
Diphtheria	2,804	28.3	4,383	44.6	4,545	46.7
Dysentery Epidemic	41	.4	28	.3	11	.1
Encephalitis, Epidemic	66	.7	67	.7	91	.9
German Measles	520	5.2	1,041	10.6	4,022	41.3
Malaria	4	(a)	12	.1	18	.2
Measles	27,638	278.6	46,647	474.5	80,937	830.8
Mumps	11,849	119.4	21,902	222.8	15,351	157.6
Ophthalmia	65	.7	117	1.2	175	1.8
Pellagra	3	(a)	9	.1	24	.2
Rabies	1	(a)	3	(a)	2	(a)
Scarlet Fever	24,522	247.2	25,600	260.4	20,346	208.8
Smallpox	----------	----------	7	.1	10	.1
Tracboma	11	.1	17	.2	38	.4
Trichiniasis	9	.1	6	.1	21	.2
Tularemia	14	.1	22	.2	9	.1
Typhoid Fever	804	8.1	1,421	14.5	1,551	15.9
Uncinariasis	----------	----------	1	(a)	----------	----------
Undulant Fever	42	.4	47	.5	33	.3
Whooping Cough	10,948	110.4	24,873	253.0	16,366	168.0

* Case rates are per 100,000 population.

(a) Rates are not computed when the base is less than 5.

PENNSYLVANIA'S HEALTH



MAY—JUNE, 1934

Special Articles by L. M. Smith, J. Clarence Funk,
Peter P. Mayock

Pennsylvania's Health

Official Bulletin of the Pennsylvania State Department of Health

THEODORE B. APPEL, M. D., Secretary of Health
J. CLARENCE FUNK, Sc. D., Editor

Vol. 12 Harrisburg, Pennsylvania, May-June, 1934 No. 3

"Acceptance for mailing at special rate of postage provided for in Section 1108, Act of October 3, 1917, authorized April 6, 1923."

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Published bi-monthly by The Pennsylvania Department of Health, Harrisburg, Pa. This Journal is free to the people of Pennsylvania. A request to the Editor, Department of Health, Harrisburg, Pennsylvania, will bring a copy of this magazine to your home without charge.

Editorial

PUT SPRING TO WORK

THE recent winter quite conclusively proved that the Temperate Zone and the North Pole still have a definite relation. Indeed, the many thousands who were of the opinion that "the old-fashioned winter" was nothing more than reflective conversation were subjected to a prolonged refrigeration that dissipated such balmy thoughts.

And with this freezing process went an aggressive attempt on the part of most of us to make it as painless as possible. Indoor temperatures were stepped up to Palm Beach heights. Coffee and other stimulants were unduly relied upon to help ward off the effects of frigidity, and a general hibernating mood held many of us in its unhealthy grasp.

All of which is but another way of saying that the extended and unexpected cold spell has softened thousands who therefore, more than ever, need the health-giving and body-building advantages that so abound at this season of the year.

Spring is here, its tonic days, its soft and caressing breezes, and its fascinating beauty all combine to urge us to make the most of it. Are we responding?

The golf course, the tennis court, the bridle path and the woodland walk now are seductively appealing. In fact, the glories of nature are now at their best. And health is there for the man or woman who will take it.

Even those who, because of their work or residence in metropolitan districts, are denied elaborate forms of recreation and back-to-nature excursions, still have the spring air and the blue sky for their very own. But they must be taken to be enjoyed.

Intelligently to put spring to work really should need little urging. A long walk daily, though but on the hard pavement of a large city, will work regenerating wonders. Nevertheless, there are countless numbers who are unwilling habitually to surrender even an hour or so from their present routine and thus devote it to their physical welfare. It seems too bad!

Yes, the winter was a hard one. But spring now offers much. Step into its open arms. Shake off the devitalizing results of the recent rigors. Develop the vitality that alone spells real happiness and abundant living. This can be done easily and delightfully if one has a mind to do it. Why not give spring its chance!

J. C. F.

END-RESULTS OF HEALTH AND PHYSICAL EDUCATION*

L. M. Smith, M.D.
Examiner, Division of Child Labor
Pittsburgh Public Schools

HEALTH and physical education develop a socially efficient person, a useful citizen, a good potential ancestor, and inculcate habits of wholesome and enjoyable recreation, which result in the maintenance of a high quality of vitality throughout the life of an individual.

Health and physical education in their broadest sense include school medical inspection, school nursing, school dentistry, calisthenics, swimming, athletics, health instruction, and to this possibly might be added sociology which deals with psychology and home environment.

In my twenty-four years of experience in school work (seven years as a school medical inspector and seventeen years as child labor medical examiner) I have seen health work in our schools grow from an infinitesimal beginning, surrounded by antagonism, to our broad and enlightened present-day system of hygiene.

Early Beginnings

I should like to reminisce a little to show conditions as they existed twenty-four years ago. The first move of the school medical inspector was to produce cleanliness and sanitation. I remember the first day I entered a down-town school, which is no longer in existence. I was met by the principal who was a prominent educator at that time. She immediately informed me that she did not know why I was sent to her school as there was absolutely nothing for me to do there. I remarked that I should like to look around and perhaps I could find something. The filth and dirt were appalling, to say nothing of physical defects and disease.

There were four hundred children enrolled in that school. I ordered one hundred of them home with pediculosis. Tincture of Larkspur, by the quart, was sent into one-third of the schools of our city to be used by the nurses for de-lousing purposes. In the early days of health education, the tooth brush drill and the liberal use of soap and water played a very large part in obtaining results. I personally know that many children were actually sewed into their clothing for the winter. After the general clean-up campaign came systematic inspection for contagious diseases, and routine examinations for physical defects. Then a strictly normal child was something to be marvelled at.

There was rapid extension of physical education by the building of gymnasiums, swimming pools, and athletic fields. The psychological clinic with its special classes, the x-ray clinic with its open air schools, and numerous dental clinics were established in rapid succession.

In the years previous to the establishment of our modern system of school hygiene, children suffering from diseased conditions such as tuberculosis, heart disease, defective vision, defective teeth, diseased tonsils, and other serious conditions, very often died—martyrs to shortsightedness. Nobody could be blamed for conditions as they existed at that time. The public was not sufficiently educated in the benefit of health to demand hygiene in their school system.

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* Address delivered before the Pennsylvania Public Health Association

What are the end-results of these various activities that are intended to produce a clean and healthy mind in a clean and healthy body? Taxpayers have willingly spent millions of dollars on health and physical education for the benefit of their children; and in arriving at a conclusion of results, sentiment and guess-work play no part.

As one example of conclusive evidence, we know that insurance statistics show that there has been a gradual lengthening of average life. It is also agreed that this extension of approximately fourteen years in average life during the past twenty-two has come about mainly by conserving child life.

Dental Hygiene is now Routine

Another fair example that physical education with its competitive athletics inculcates habits of wholesome, enjoyable recreation is that parks, golf courses, and athletic fields are constantly being enlarged. Moreover, the newspapers must devote as much space to the sports section as to the news, educational, and financial sections, to keep up their circulation by catering to public demand.

The Child Labor Law

As Child Labor Medical Examiner for Pittsburgh, I have been in a position to gather some interesting statistics on the end-results of health and physical education. The legislation became operative on January 1, 1915. The law applied principally to children over fourteen years of age and under sixteen years of age. It limits the hours of labor and also the kind of work a child is permitted to perform. It established Continuation Schools and, most important from the physician's point of view, it required a physical examination of every applicant for an employment certificate. This examination includes weighing and measuring to determine the degree of nutrition. The usual required minimum weight is eighty-three pounds for fourteen-year-olds and eighty-eight pounds for fifteen-year-olds. Children below these weights are considered to be suffering from malnutrition, and care is taken to determine the cause.

Again, the ear, nose, and throat are examined for defective hearing, or tonsil and adenoid disease. The mouth is explored for defects of the teeth, pyorrhea, or abscesses. The heart is examined for disease or valve lesions, the lungs for tuberculosis, the nervous system for St. Vitus dance or other disorders, and the thyroid gland for goitre. At this period of adolescence we must determine whether or not a thyroid enlargement is physiological or early true exophthalmic goitre. Examination is made for defects of carriage, such as spinal curvature, also for hernia, skin disease, epilepsy, and kidney disease.

The office in which these examinations are made is better equipped than most physicians' offices. We have a nurse technician and are prepared to run metabolism tests, do urinalyses, take blood pressure readings, and even draw blood for Wasserman tests in suspected blood-stream infection.

The Success of School Hygiene

We have always kept accurate statistics on these examinations, and in order to show the end-results of health and physical education, I have taken eleven yearly total cards from my files. Which extend from 1923 to 1933. In this period we made 43,490 examinations. The following are the facts deduced from comparative statistics. You can draw your own conclusions as to whether the child of today is physically superior to the child of a decade ago.

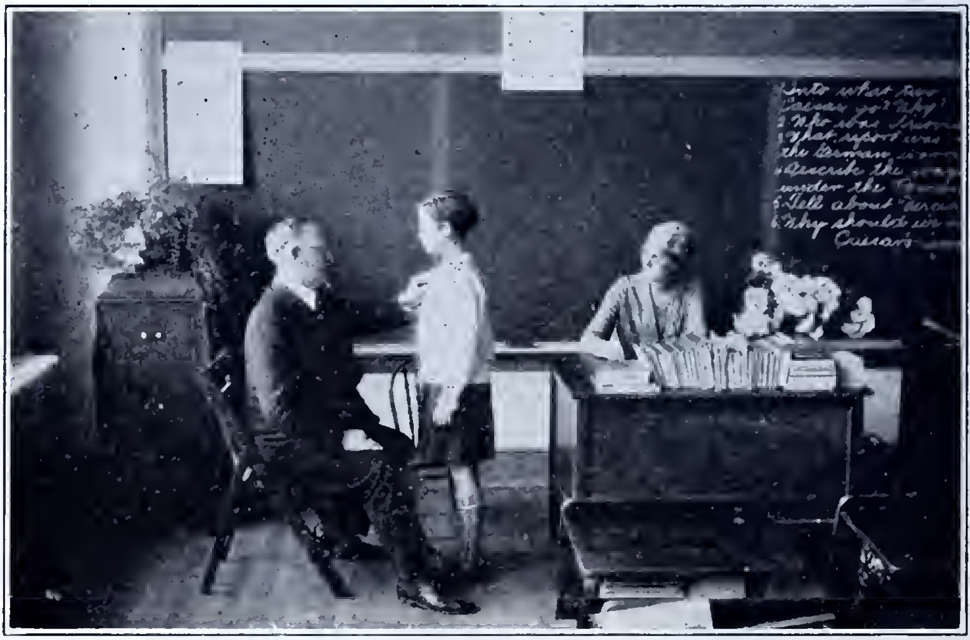
However, there are three points I desire you to keep in mind while listening to the following figures. 1. Every one of these children had the benefit of six or twelve years of health and physical education in our school system before he or she came to me for examinations, as every child must complete the sixth grade before he can apply for an employment certificate; 2. Every one of these 43,490 children is fourteen or fifteen years of age; 3. The last examinations in 1933 were more thorough because of more efficient help, better facilities in the form of equipment, and a decrease in the number of children leaving school to go to work.

In 1923 approximately 33 percent of all examined children were refused employment certificates because of impaired health. In 1933, only 20 percent were refused. This is equivalent to almost a 40 percent improvement in the physical condition of children leaving school.

In 1923, 24 percent of all examined children were refused an employment certificate because they had two or more defective teeth. In 1933, 12 percent were refused for this reason. This shows a 50 percent improvement in dental hygiene.

In 1923, 8 percent were refused because of some form of malnutrition. In 1933, 4 percent were refused—50 percent improvement in weight and height in a period of eleven years among our school malnutrition cases.

In 1923, 16 percent were refused because of defective vision and not wearing glasses. In 1933, 14 percent were refused. This reduction is significant and hardly to be expected because in the last eleven years there has been an increase in the number of children remaining in school and entering high school, which means greater strain upon the eyes.



The Correction of Visual Defects is Fundamental

In 1923, 7 percent were refused because of diseased tonsils and adenoids requiring operation, while in 1933, 6 percent were refused. This shows that a greater number of children are having tonsils and adenoids removed before they are fourteen years of age.

As regards pulmonary tuberculosis, confirmed by x-ray, and sufficiently serious to cause permanent refusal of employment certificates, there were, in 1923, two cases per thousand examinations, but in 1933 there was one case per thousand examinations.

Heart disease, verified by valve murmur and blood pressure readings, and sufficiently serious to cause permanent refusal of an employment certificate, shows the following statistics: in 1923 there were seven cases per thousand examinations; in 1933, five cases per thousand examinations.

I would like to say that fully 98 percent of these children had been told of their physical defects before coming under my care, a fact which is evidence of very thorough work in the school system. Through the compulsory health feature of the Child Labor Law and our follow-up system by the nurse assistant, the home and school visitors (who are sociologists), and the attendance officers, we are able to get corrections in approximately 50 percent of the refused cases.

I believe that children today are of greater stature than in the early years of health and physical education. On the average they weigh more and grow taller. This result has occurred in the face of our so-called artificial and speedy American method of living. In order to confirm this opinion, I had my associates tabulate the weight and height of 1000 children from the 1923 and 1924 group of examinations, and also a like number from the 1932 and 1933 group of examinations. In this period of seven years, I find the following results:

The average weight and height of fourteen and fifteen-year-old boys and girls in 1923 and 1924 is: weight, 106 pounds, 5 ounces; height, 5 feet, 2/3 of an inch.

The average for the 1932 and 1933 group is: weight, 112 pounds, 2 ounces; height, 5 feet, 1-1/3 inches.

This is an average increase of 5 pounds, 13 ounces in weight, and 2/3 of an inch in height, and is fairly conclusive evidence that children are gaining in stature.

Children are Taller Than Formerly

We physicians know there is entirely too much heart, arterial, and kidney disease among the older generation; but looking far into the future, I believe the present rising generation will show a marked decrease in these serious ailments of later years because of modern health and physical education. The development of a strong musculature, perfect equilibrium, co-ordination of movement, and a well balanced normal nervous mechanism—by calisthenics, athletics, and gymnasium activities—form a good foundation on which to combat serious infectious diseases in later life. The abscessed tooth or diseased tonsil, properly cared for today, directly or indirectly prevents heart, arterial, kidney, and other serious maladies in the future.

I have said that health and physical education may possibly include sociology, which deals with psychology and home environment. This child health and welfare work has been almost entirely in connection with the Compulsory Attendance Department, which has charge of the enforcement of the Child Labor Law and the School Attendance Law.

Several years ago I became interested in the truant child. At that time there was an average of fifteen to twenty suits for truancy a week. For a long period I made examinations of truant children and in some cases interviewed parents. I came to the conclusion that the incorrigible or truant child was the result of one or more of four conditions: 1, home and school environment; 2, parental training and ignorance; 3, physical defects or illness; 4, mental deviation.

Truancy Not a Police Problem

In view of these facts, truancy among children is positively not a police problem as it has been looked upon for many years. It is primarily the problem of the sociologist who is capable of co-ordinating the activities of the doctor, nurse, teacher, and parent. Society has sadly neglected this phase of education. The sooner the old-fashioned truant officer is relegated into oblivion, the better for the school system and society as a whole. The attendance department in a large city deals with the poor, the ignorant, the mentally or physically ill, the socialistic and anarchistic elements—the lower strata of society. In bringing suits for truancy, we are dealing with the end-result instead of the underlying cause.

When a suit is entered for truancy, a child has his first experience with the law. It does not do the youngster any good to drag his parent before an alderman and fine him five or six dollars, and possibly repeat this operation several times. By this method money is taken which is badly needed to clothe, feed, and house the child properly. By police methods, we destroy that inherent quality that is born in the child—his ability of adaptation to the rules of society. We stir up resentment and antagonism; and the child frequently becomes a chronic offender or petty criminal. He develops a complex which leads him to live up to his reputation of being a bad boy. We know that moral law dominates man whether he respects it or defies it. The same is true of children to a far greater extent. Breaking the truancy law, with the resulting suit, is often the entering wedge to a career of criminality.

By neglecting these lower strata of society, by dealing with them through police methods instead of recognized modern scientific methods, we are parties to the filling of reform schools, jails, penitentiaries, juvenile courts, etc.

Four years ago the Pennsylvania Assembly amended the attendance law empowering local boards of education to employ home and school visitors who are trained sociologists. Every vacancy that has occurred in the corps of attendance officers since then has been filled with a college trained sociologist; and we hope to see the day when the truant officer, as constituted today, with very little training or education, will be entirely obliterated from the school system. It is just as important to society to have a well trained educated personnel to deal with incorrigible children as it is to have a well trained educated personnel in charge of the classroom. This comparatively new field of child health and welfare work is producing good end-results where given a fair trial.

To conclude, I have endeavored to show that the greatly improved standard of health in the modern school child can be attributed almost entirely to our intensive system of health and physical education.

The Health Gnome Says—

Winter with its chilling blasts
Has given way to Spring;
And Old Dame Nature therefore smiles,
Upon every living thing.

But there are countless persons,
Who refuse to smile at *her;*
And thus lose all the benefits
That she wishes to confer.

She frankly offers life and health,
To those who want such things;
"Meet me half way, I'll do the rest"
She blithesomely sings.

"Fresh air, sunshine and beauty,
I now gladly offer you;
To make you well and happy—
Come along with me, please do."

Yes, Spring is doing all she can
By presenting her great wealth;
So if you're wise you'll heed her call,
And thus get abundant health.

J. C. F.

PREVENTIVE MEDICINE AND THE FAMILY DOCTOR*

J. Clarence Funk, Sc.D
Chief, Division Health Education

SOME weeks ago an outstanding citizen of an eastern city, while discussing the cost of illness with me at dinner, remarked "Doctors are robbers. Medicine is a racket."

Inquiry as to the basis for this rather startling opinion indicated that the accuser was a specialists' patient. Moreover, months ago his judgment had been warped by a news item in his favorite daily regarding the report of the Committee on the Costs of Medical Care.

Thus, accustomed to the larger fees exacted by the specialized physician and erroneously informed by a news-reporter, he deduced that doctors were thieves joined together in an unholy alliance to extract a maximum reward for minimum effort.

There are thousands of the laity more or less thinking the same thing today, and for much the same reason.

As a matter of fact, the persistent prominence associated with the publication of the Committee's majority report, rather generally created the idea that for the tremendous charge upon sickness the average run of the medical profession was largely to blame.

Of course, every physician knows that of the actual illness outlay his share of the spoils is extremely small compared to the hospital, nursing and after-care items. Nevertheless, the sad fact remains that the family doctor is not only blamed for being a gouger, but many otherwise sensible persons, in these days of hard money, because of this false impression, are actually detouring the physician in the earlier stages of sickness and consequently are running unjustifiable risks.

It is evident that both the public and the physician are victims in this situation. It is equally apparent that something should be done about it.

No one knows better than the doctor that in spite of a Century of Progress there yet remains to be developed a century of progressive living. Aghast at the mortality figures of middle age, having the professional ability enormously to decrease them, and at the same time add to his pocket book, the medical man nevertheless stands on the side-lines frozen into inactivity by a false modesty and by the lack of effective mass educational publicity.

In reality, this is the way things stand: 68,500,000 people of 35 years or more in the United States, the great majority of whom are interested in everything else under the sun but their own health, needing disease prevention and constructive health information—and not getting it. And thousands of doctors in a position to give it to them—and not doing so!

Attempts are being made to cure this unfortunate situation. Life-extension institutes, physical check-ups available to selected policy holders of a few of the larger insurance companies, group clinics, and a comparatively few physicians who have specialized along this line to their marked financial benefit, represent some of the more successful manifestations in this laudable line of endeavor. But that practically ends it. The medical profession as a whole as yet seems to be quite indifferent to the proposition.

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* **Reprinted with permission from Medical Economics**

In making this statement there is no desire to be over-critical of the average physician. He is decidedly handicapped in this next step forward. For instance, there is the stigma of personal gain. Then, again, an inert mass of wholly uninterested millions is no mean hurdle to clear. And to these hindrances must be added the liability of outstanding failure in the educational attempts thus far made to pry loose Mr. Average Man from his anchored lethargy.

The Birthday Slogan

"Be Examined on Your Birthday" is a slogan that has lamentably lacked pulling power. Indeed, nearly everyone wants anything else but to be physically investigated on any day, much less on his natal day, physicians included!

Nevertheless no one can deny the incalculable possibilities for good in the right slogan—a slogan that will really energize the well and the near-well to become curious once or twice a year regarding their bodily condition and thus seek professional investigation. In all probability, such a catch-sentence will eventually be born; an expression that the good, ethical, conscientious doctor can whole heartedly adopt. Meanwhile a gold mine of health is being missed by the population; and a mine of gold is being side-stepped by the majority of family physicians.

What about these crying demands of the present? It is right here that the family doctor, if he has the mind to do so, can step into the breach.

After all, preventive medicine, as relates to the individual *is* the general practitioner's job. And he, better than any other physician or group of physicians, is in the best position to do a fine job well. This, everyone knows.

Besides, the trend to the family doctor is distinctly an upward one; this because it is basically sound and financially economic. More patients are realizing that, in the first instance, the professional man who is best able to diagnose illness is he who intimately knows all of one, rather than a special part. Then, too, prices are driving people back to the old type confidant and physical confessor.

"But I'm not equipped to handle this kind of work," objected a doctor recently, to whom the matter was suggested. That physician was merely the victim of an inferiority complex.

In short, because he lacked a highly equipped laboratory he concluded he was in no position to undertake this work. His younger brother physician in the same block "had a fine outfit and got what there was of the physical examination business."

And perhaps, to some extent at least, that situation explains the public's lack of affection for the periodic examination. Even that small minority who believed in the birthday slogan, in actuarial statements, and in life-extension promotions, found themselves so scientifically inspected from stem to stern by all sorts of fearful contraptions that the romance of the thing became extremely dull, which was by no means sharpened when the bill for services rendered made its impressive and highly extractive appearance.

Now, consider for a moment Mr. Average Fellow and his examination. Does he need the benefit of x-ray? Does he require a cardiagram? Is it essential that he be basal metabolized? Must he be subjected to the other super-tests that send the bill up to a prohibitive figure? It is very questionable, indeed.

As a case in point, a woman of 60 recently went to a group clinic for a physical examination. After repeated visits and an intensive investigation, that to her seemed almost to be an inquisition, she was handed a 20 page report and a bill for one hundred dollars. The advice attached to the formidable document was in substance, that she was past middle age, that her organs for her time of life were functioning as well as might be expected, that she should get more sleep, play less bridge, eat fewer sweets, use her automobile less, and her legs more.

This scarcely seemed enough for her money so, upon the advice of one of her friends who had been examined by the family physician of both of them, she very tactfully checked up with him. After an hour he rendered *his* verdict, which was, in substance, that she was past middle age, that her organs for her time of life were functioning as well as might be expected, that she should get more sleep, play less bridge, eat fewer sweets, use her automobile less, and her legs more. The bill in the second instance was ten dollars! It scarcely need be added, that this physician, though experienced in physical examinations, was not routinely impressing his patients with this fact.

True, conditions may be discovered by the less elaborately equipped physician which will suggest further inquiry by appliances that he does not possess. In which case, he promptly refers his candidate for longer life to the proper man to do the work.

The point is that in the first instance the stethoscope, the sphygmomanometer, a pair of scales, the blood counting and urinalysis outfits in the majority of cases can be relied upon to protect the patient against the insidious onslaughts of devitalizing or fatal maladies. This fact apparently is forgotten by the average doctor.

Indeed, if this conception were more clearly realized by the family physician he would refresh his mind on the several technicalities associated with examination; if indeed, he required refreshing. He would also procure blanks which are readily obtained either from the American Medical Association or from his state society. At the most, a small investment might be required for more modern equipment. He can well leave the high priced diagnostic instruments to the specialists in whose offices they properly belong.

Salesmanship

Thus fortified professionally, the family doctor has taken the first big step toward greater service and greater income. But his biggest job yet lies ahead.

He now must become an ethical salesman which, in fact, is somewhat against his natural inclinations and professional viewpoint. From the very start of his medical life he has been educated to the idea that his type of service must be sought. He may imagine that it will be difficult for him to overcome his habitual reticence regarding the health-promotion business. He knows that quacks and fakers seek trade—and get it. But for him deliberately to suggest as a matter of routine to his patients of 35 years and older that they should come to his office once or twice a year and give him money when they have no pain or illness; well, that is not an easy thing to do.

Replying, it may be said that most certainly he will take in more money by this procedure; that is, if he is a good salesman. But, after all, that feature is only an incident. The real thing is Scientific Service.

Once appreciating this viewpoint it should become a comparatively easy matter for the general practitioner to emphasize to the gentleman-of-fifty-with-a-cold or the lady-with-a-stomach-ache the advantages of the regular physical examination. He indicates that it is but a scientific protective step against disease and premature dissolution. He stresses the value of early diagnosis. He states the definite advantage of a proper living regimen based on the findings of such an investigation. And he clinches his argument by remarking that this quest for deficiencies will cost little more than a tank of gasoline or a new pair of shoes, with only the vague likelihood of a greater outlay if a more elaborate investigation appears to be justified on the findings. In which case the additional expenditure could well be afforded. How can this be viewed in any other light than as an immeasurable service to his patients?

The Elaborately Equipped Laboratory Can Still Do Its Work When Indicated

And so, even without a much-to-be-desired slogan the family doctor, now regaining some of his former popularity, sells the idea of disease prevention, disease discovery and personal cooperation to his clientele with the dollar mark shunted practically out of sight, as it should be.

A physician whose daily income was painfully in line with the times has this to say about the examination experiment, "At first I did physical examinations in my spare time. Then people began to tell their friends, with the result that I have more examinations than I can accomplish."

That physician, an average practitioner, undoubtedly is making money but he also is rendering a most humane and constructive health service; a service that large numbers of the medical profession should also be affording their patients.

By doing so, the profession will save innumerable serious illnesses, will block a large number of premature funerals, and at the same time afford their professional skill its great chance at the last real enemy of the healing art—man's indifference to his own physical welfare.

It seems to be a challenge. Now then, doctor, how about it?

FIFTEEN YEARS EXPERIENCE IN VENEREAL DISEASE CONTROL*

Peter P. Mayock, M.D.
Chief, Wilkes-Barre Genito-Urinary Clinic

WHEN in August 1918, Pennsylvania State Clinic No. 1 opened its doors for the treatment of venereal disease and I was asked to take charge, I accepted reluctantly. I was not any too enthusiastic about the feasibility of the public health program. I realized full well that state recognition would help considerably to lift the venereal disease problem from the mire of prudery and quackery, and I had also hoped that a properly conducted clinic would some day be able to compile some real and conclusive statistics based on cases which were followed and controlled.

Fifteen years have passed and it is possible to make some very valuable observations in regard to therapy. Moreover, some worth while statistics have been compiled. Concerning the public health program fifteen years have expelled many doubts and have afforded ample time for a sound evaluation of that program. It is the modus operandi of this program which I wish to discuss today.

However, before discussing the program let us review briefly the great strides modern medicine has made along the line of communicable and contagious diseases. We hear so much of the triumphs of surgery I sometimes feel we forget the achievements of medicine. Some of us I believe can look back thirty years and recall the terrible morbidity and mortality from diarrhea, dysentery and cholera-infantum during the hot seasons. Thanks to education, legislation, pure food and sanitation these have been eradicated. How many pocked-marked men do you see today? Yet it is less than a century since this terrible scourge devastated the whole country. How many of you realize that the French failed in building the Panama Canal not because it was an engineering problem, but because they could not live there—the yellow fever mosquito drove them out. How much did you hear of typhoid fever in the Great World War as compared with the Spanish American War of only thirty-five years ago? Diphtheria and scarlet fever are no longer the dreaded scourge of childhood. Their prevention and cure are almost assured.

True, we yet have some big problems to be solved, nevertheless I feel perfectly safe in saying when we know the cause of a disease and the condition under which it spreads, the battle is half won; if the cause is of the contact type of contagion and not air born, all that is necessary for its elimination is an organization. We have contact contagions in the venereal diseases. They are not carried through or by the air. Contact or inoculation with the virus is necessary before infection can occur, so you can readily see with proper organization there is no scientific reason for its existence.

It is not my purpose to burden you with statistics concerning the prevalence of venereal diseases, yet I do wish in passing to give you some idea of the havoc they create. Gonorrhea, second only to measles, is the most prevalent of all contagious diseases. It is conservatively estimated that 60 per cent of all men who reach adult life have had or will have it. It is responsible for 40 per cent of the world's blindness;

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* Address delivered before Pennsylvania Public Health Association

it is a great destroyer of life at its origin, causing many sterile and one-child marriages, and countless mutilating operations on the female.

Syphilis is the greatest killing disease. Its annual toll is as great as its nearest rivals, tuberculosis and pneumonia. The death rate from syphilis is almost three times that of cancer. It affects any and every tissue of the body, in any and every conceivable manner. Sir William Osler said "Know syphilis and all its manifestations, and all things medical are open to you."

After listening to this very brief indictment, which is not in the least over-drawn or exaggerated about two diseases which are of the contact type of contagion you must only wonder why we waited until 1918 to make them a part of a public health program. The object of every such program is better health by eliminating or decreasing the incidence of infection. To accomplish this, organization is the first requisite. Once this has been affected a plan of attack should be devised.

Detention Ward for Public Health Menace Venereal Cases

The venereal disease problem embraces medical, educational, legislative and rehabilitative measures. These measures, vital as they are to the successful venereal disease program, are so comprehensive I shall only touch on a few of the essential points which we in No. 1 Dispensary consider fundamental.

To begin with it is folly to attempt to conduct a venereal disease clinic without cooperation from external agencies that can, will and should assist us. It would be equally unwise of us to expect assistance from these agencies unless we should solicit it and point out to them how and when they can help. In other words, each co-operating agency should be explicity instructed how it may help. These agencies are—the judges, mayors, burgesses, committing magistrates, municipal and state police, health officers, medical and nursing professions, social and welfare workers. Once we have impressed them that we are engaged in a sane, feasible, practical and workable program; that we are not interested in any idle reform movement and are only interested in people's morals when they affect their health; that we are engaged in laying bricks and not throwing them, then we can expect co-operation to the limit.

With the aid of these above mentioned agencies we have to a great extent solved our source and delinquent problem—the great bug-bear of every clinic. And in a measure we have abolished commercial, segregated prostitution from our community.

Controlled Treatment is a Major Necessity

A diligent, tactful inquiry is made of every patient presenting himself or herself at the clinic with a recently acquired infection as to its source. Not only is this a routine clinic procedure, but a great many physicians have adopted this plan in private practice. If the source is of the commercial prostitute type police measures are immediately invoked; if not, tactful handling either through the patient, the social worker or one of the many co-operating agencies will accomplish the desired result, namely, treatment.

Follow up letters are sent to delinquents after they absent themselves for two weeks; if there is no response at the end of two weeks they are notified by the health officer in their district to report; if they still persist in their delinquency they are notified by either the state or municipal police and warned that failure to co-operate means isolation and detention.

In September 1920, through the kindness of our judges, prison and county commissioners, a wing of the Luzerne County Prison capable of accommodating sixty people was set aside for us for isolating and treating our public health menace cases. This was and is the only available place in our community properly to quarantine these patients. It has been officially approved by the Secretary of Health as a suitable place of detention. Adequate treatment is furnished, and a minimum quarantine period of forty-two days is insisted upon.

The ward is in charge of matrons who supervise the disciplinary and occupational measures and assist the social worker in obtaining the necessary personal history in order most wisely to provide for the rehabilitation problem. The patients are all examined mentally and institutionalized when deemed advisable. The intelligently evil and purely wicked type profit from the punitive affects of detention and the knowledge that prostitution is no longer profitable. Every effort is made to restore the willing ones to useful, wholesome citizenship. While we have frequently failed in this endeavor, yet we have often succeeded, when failure seemed imminent.

We realize that the problem of prostitution has been an eternal one, so we have not set about our tasks with any misguiding notions as to its magnitude. In fact, fifteen years experience with the aid of our cooperating agencies we believe have welded together an organization which has made our community a more wholesome place in which to live.

Since August 1918, we examined in our State Clinic No. 1, 10,733 patients, 2,640 of these were infected with syphilis, 4,529 had gonorrhea. These patients made 166,319 visits to our clinic, 58,253 administrations of neoarsphenamine have been given, and 29,916 blood wassermanns have been taken. These few statistics are given in order that you might have some idea of the great volume of work that has been done by this clinic.

After the experiences of the last four years, I am perfectly frank to admit that the economic problem is the vital underlying factor in any health problem be it private or public. No enthusiastic public health worker would dare assert that the incidence of tuberculosis which is one of our oldest and best recognized (and advertised if I may use the expression) public health problems is less than it was four years ago, because we all know it is essentially a nutritional problem. So too with the venereal diseases; it is an employment problem. Idleness is a predominant factor. Public health recognition of this question has awakened the interests of the hospital, the medical and nursing professions and welfare organizations and compelled them to assume their responsibilities. It has more or less relegated the prude, the quack and the venereal disease nostrum to the scrap-heap in this community. Counter prescribing by the druggist practically has been eliminated. May I presume to say I feel confident that the incidence of venereal diseases is much less in this locality than it would have been had this clinic never functioned.

DEPARTMENT NEWS

CONTINUE CHECK ON MILK—The bureau of milk control is engaged in a survey to determine what percentage of milk is coming from cows which are not tuberculin tested.

Under the 1929 law all raw milk sold in Pennsylvania must come from tuberculin tested cows. Department officials believe this provision has been generally recognized and adequately enforced for the last three years.

The law does not contain a similar provision for milk sent to pasteurizing plants. Nevertheless, the tuberculin testing of cattle being conducted by the State Department of Agriculture's bureau of animal industry has progressed to a point where all counties in the northern and western portions of the Commonwealth are completely tested under the area plan. There are about thirteen counties remaining in the southeastern part of Pennsylvania in which the animals are not all tested, though a large proportion of these cows are tested under either the individual or the accredited area plan.

"In order that the Department may have detailed information on this area plan, questionnaires were mailed to all dealers in pasteurized milk in the thirteen counties not yet one hundred percent tuberculin tested," explained George C. Morris, acting director of the bureau of milk control.

Safe Milk is One of the Greatest Health Assets

"Already three hundred of the replies indicate that the entire milk supply for the plants involved is from tuberculin tested cows. Only twenty-six reports thus far indicate that the milk supply partly is obtained from cows which are not as yet tested. These dealers stated that but 256 herds out of a total of 901 yet remained to be subjected to the test.

"Based on these reports and individual investigations made by the bureau," Morris said, "it is the Department's belief that by January 1, 1935, all milk sold in this Commonwealth will be from tuberculin tested cows." Fine and healthy work!

INTER-CHAMBER HEALTH CONSERVATION CONTEST—The Chamber of Commerce of the United States in cooperation with the American Public Health Association has announced an Inter-Chamber Rural Health Conservation Contest. Hitherto the Chamber's contests, which have been featured annually for a number of years, have been limited to urban sections. The purpose of the contest is to further the development of sound rural public health work to the end that community health services may be improved.

The only requirement is that the whole-time county or district health unit (this means a county or district health unit employing a full-time health officer) be enrolled by a chamber of commerce or similar organization affiliated with the Chamber of Commerce of the United States. This local chamber should be, of course, fairly representative of the health area desiring to enter.

The enrollment procedure consists of the filling out of an entry blank by the secretary of the chamber of commerce representing the area and the forwarding of it to the Insurance Department of the Chamber of Commerce of the United States at Washington, D. C.

A fact-finding schedule, similar to the one used in the City Health Conservation Contest but adapted to rural areas, will form the basis for grading the counties or district health units.

Advisory field service will be rendered to those enrolled counties or districts which specifically request such service.

Further data on the contest are available either from the Insurance Department, Chamber of Commerce of the United States, Washington, D. C., or the Committee on Administrative Practice, American Public Health Association, 450 Seventh Avenue, New York City.

RENEW DRIVE ON DOPED CIGARETTES—The division of narcotic control, after its intensive drive in Philadelphia and Pittsburgh against the illicit traffic in marihuana cigarettes, for the past few weeks has been investigating reports of this type of activity in a number of the less populous communities, according to a statement recently made by Harold V. Smith, chief of the narcotic division. Thus, while investigation continues in the metropolitan districts of Philadelphia and Pittsburgh, other law enforcement officers have been detailed to the smaller cities. The chief of the division indicated that the marihuana habit is being introduced insidiously among high school students.

The result of smoking this weed leads to dreadful consequences. Whoopee parties which turn into veritable orgies among younger people have resulted sufficiently frequently to exercise health officials and other control officers. Parents should warn children to avoid the purchase and use of this weed which is now being purveyed illegally in this Commonwealth and which makes pitiable victims of its users.

CHECKING RECORDS—The inspection and enforcement division is now checking the records of the 670 local registrars located throughout the Commonwealth. This activity is to determine the cooperation, or its lack, of the statistical gathering group in connection with physicians and undertakers relative to births, deaths and reportable diseases. It is expected that this survey in conjunction with other division activities will continue for the next several weeks.

Statistics Are the Measuring Rods for Public Health Activities

PENNSYLVANIA PUBLIC HEALTH ASSOCIATION—The tenth annual meeting of the Pennsylvania Public Health Association was held in Philadelphia at the Warwick Hotel on May 23rd and 24th. By far it was the most successful meeting in the Association's history. Prominent speakers within Pennsylvania, as well as from other jurisdictions, made the program outstanding. The attendance was noticeably larger than in former years.

Officers of the Association elected at the meeting are: President, James R. Smith, M.D., Erie; 1st Vice-President, Thomas W. Henderson, Washington; 2nd Vice-President, H. A. Fritschman, Upper Darby; Treasurer, Andrew J. Bohl, Harrisburg; Assistant Treasurer, Arthur M. Dewees, Philadelphia; Executive Secretary, J. Clarence Funk, Harrisburg. Delegate to the American Public Health Association, Charles B. Crittenden, M.D., Wilkes-Barre. Executive Committee, Theodore B. Appel, M.D., Lancaster; James N. Rule, ScD., Harrisburg; William G. Moorehead, Harrisburg; C. B. Auel, Irwin; A. Jane Marshall, R.N., Harrisburg; Mrs. E. W. Bixby, Wilkes-Barre; Miss Laura C. Haines, Doylestown; Harold V. Smith, Curwensville.

The next meeting of the Association will be held in May 1935 at Harrisburg. All those engaged in public health activities in Pennsylvania are eligible to membership in the Association. The dues are two dollars annually. It is a mutual Association with no salaried officers. The organization is approved by the Department of Health for the purpose of promoting health within the confines of the Commonwealth.

INFANT WELFARE—During the last thirty days 1,470 home visits were made by the members of the Department's nursing force to investigate conditions in connection with infant welfare, according to a recent report submitted by Mrs. Mary Evans, director of the bureau of nursing.

In the 156 child health centers supervised by the Department there was a total of 240,334 visits to the clinics during the same period which represented an aggregate of 462 clinic days.

It thus appears that the under-privileged infant is getting his proper share of attention. It is a type of health conservation which is fundamental. The nurses, as always, are doing a splendid job.

CRIPPLED USE POOLS—The new auxiliary centers for the treatment of infantile paralysis at Mont Alto and Cresson have been in operation for several months. The work involves the use of pools which permit the exercise of muscles needing the support of the water for this purpose. Forty little patients are now receiving pool treatment, as well as massage and muscle training on tables. This auxiliary service for sub-acute infantile paralysis is now on a capacity basis.

Based upon the experience at these institutions, which is proving highly satisfactory, it is contemplated that a large pool eventually will be erected at the Crippled Children's Hospital at Elizabethtown so that the advantage of this type of therapy may be more generally applied.

INSPECTION OF RECREATIONAL CAMPS—Representatives of the restaurant hygiene section and of the bureau of engineering are now engaged in the annual inspection of recreational camps in Pennsylvania.

The summer population in these camps located notably in the Pocono Mountain region, though scattered throughout the entire state, reaches approximately 40,000. The majority of this population is composed of children from ten to fifteen years of age.

The purposes of the inspections include a check-up on the water and milk supplies, sanitary conditions in the camps and on the physical condition of food handlers.

WATER-WORKS APPROVAL—The Department recently approved twenty-six waterworks plans which have been developed for a number of waterworks plants. These installations are to be erected in towns previously dependent upon wells and springs. This work is being financed by CWA funds and will eliminate the typhoid fever menace in the communities involved.

In addition to the waterworks permit, thirty sewage permits for original and supplemental construction also have been approved for various localities in Pennsylvania. This work will be carried on by federal aid as well.

LIQUOR VENDORS TO OBEY HEALTH RULES—The Department is now enforcing the regulation relative to the proper cleansing of eating and drinking utensils in the thousands of places now engaged in selling beer and spirits.

Letters of instruction have been forwarded by the Department to the boards of health in the respective communities. The regulations make it mandatory for such establishments thoroughly to cleanse with hot water and soap any dish, glass or other receptacle or utensil employed in eating or drinking before it is used by another individual.

The Department indicated that the burden of enforcing this regulation in the first instance is upon local boards of health, but that personnel of the restaurant hygiene section from time to time will make supplementary investigations.

MAY DAY HEALTH DAY—The annual May Day Health Day activities are now in full swing, according to a recent report of Dr. Mary Riggs Noble, state chairman. Hundreds of clinics have already been held and follow-up work for correcting defects thus discovered is now under way.

This great work of health conservation has behind it the active interest and work of the Parent Teacher Associations, Federated Women's Clubs, as well as official public health workers.

TUBERCULOSIS CLINICS—Four hundred and forty-one tuberculosis clinic sessions, with a total of 426 new patients and a return of 4,136 old patients, were held during the last four weeks under the Department's supervision.

The number of patients visiting clinics was 4,145. One hundred and ninety were sent to the State sanatoria at Cresson, Hamburg and Mont Alto. Home visits in connection with tuberculosis activities totaled 4,035.

"While there has not been an increase in deaths from tuberculosis during the past six months," states Dr. John B. Critchfield, chief of clinics, "there is every indication that tuberculosis is again gaining some headway, particularly among those under forty years of age. The economic situation which has directly affected diet, housing and other living habits has much to do with this unfortunate situation.

"Never before in the Department's history have the clinics been so busy as they are at the present time. In spite of increased bed capacity at the sanatoria, waiting lists are larger than ever before. It can be expected that the effects of the depression will be noted in the tuberculosis illness rate for a number of years."

COLLEGE STUDENTS HEAR CANCER FACTS—The Department of Health presented a cancer lecture at sixteen colleges and universities in Pennsylvania during April and May.

"The necessity of educating the public on the preventive phases of cancer is considered by the Department to be vital," said Dr. Theodore B. Appel, Secretary of Health, in announcing this campaign. "The ever increasing incidence in cancer deaths which has alarmingly risen in the past decade is sufficient justification for every effort that can be made to indicate the necessary facts in cancer prevention which, by their very nature, must be adopted by the individual."

Last year approximately 10,000 normal school students were reached directly by the Department. Many thousands of additional students in colleges and universities were reached in this second itinerary. J. Clarence Funk, chief of the Department's division of health education, who prepared and presented the lecture last year, was in charge of this year's program also.

The activity was sponsored by the Department in conjunction with the Cancer Commission of the State Medical Society of which Dr. J. M. Wainwright, of Scranton, is chairman.

COURSE FOR HEALTH OFFICERS—The annual course of instruction in communicable disease control and sanitation for Department fulltime health officers and for officers of borough boards of health is now being conducted at the U. S. Field Medical Service School at Carlisle.

The course extends over a period of four weeks and the faculty consists of the medical officers of the Carlisle barracks.

The Health Officer is a Vital Factor in Protecting Health—Housing Inspection

MOTHER'S DAY—The observance of Mother's Day on Sunday, May 13th, was general in Pennsylvania. During the week speakers in various sections of the Commonwealth, not only in pulpits but at meetings of service clubs and lay groups, urged that efforts be made to improve maternity care and thus help save the lives of mothers who die in childbirth.

Commenting on the present situation, Dr. Theodore B. Appel, Secretary of Health, said, "Our maternal mortality rate is too high. Pennsylvania lost 784 mothers through child birth in 1933. The maternal death rate for the United States is 6.6. When we consider that the mortality has been reduced as low as 2.2 in certain localities where efforts were concentrated to offer the best of care, it becomes plain that there is much room for improvement all over the country."

The above statement eloquently points to an unsolved problem. The national figures are even more convicting. Of the 16,000 women who died in maternity in the United States in 1933, 10,000 died needlessly. This shadow must be removed.

Vital Statistics Comment

SCARLET FEVER IN 1933

Florence Hardy
Statistician

THE morbidity and mortality from scarlet fever has increased steadily in Pennsylvania during the past few years. The provisional total of 270 deaths in 1933 was higher than that of any year since 1926, while the 28,190 cases represented the maximum number ever recorded since the beginning of registration in 1906. Furthermore there are, undoubtedly, many cases of the disease throughout the state which have never been reported to the health authorities.

The greatest incidence of scarlet fever in 1933 occured in March when 4,881 cases and 41 deaths were recorded which is equivalent to a case fatality rate of .8 (deaths per 100 reported cases). The corresponding rate for the entire year was 1.0. The case fatality rates for each month in 1933 were:

January	1.0
February	1.0
March	.8
April	.7
May	1.1
June	2.0
July	2.1
August	1.2
September	1.0
October	.9
November	.8
December	.8

Of the 28,190 cases of scarlet fever reported last year 47.5 per cent were males, and 52.5 per cent females—98.0 per cent white, and 2.0 per cent Negro. Compared with three other common diseases of childhood, the percentage of Negro cases of scarlet fever to the total exceeded that of diphtheria, but was less than that of either measles or whooping cough.

A total of 12,567 or 44.6 per cent of all scarlet fever cases in 1933 were among children in the age group 5—9 years, inclusive. The next largest total occurred among children from 10 to 14 years of age. However, while it is a disorder primarily of childhood, scarlet fever occasionally attacks persons in the extreme ages. In Pennsylvania last year 162 cases of this disease were reported as occurring in infants under one year of age, while 9 persons over 65 years contracted the infection. In the following table are given the percentages of scarlet fever cases in 1933 by age and sex.

Age Group	Total	Male	Female
Under 1 year	.6	.6	.5
1 year	1.6	1.9	1.4
2 years	3.4	3.6	3.3
3 years	5.5	5.8	5.2
4 years	6.6	7.1	6.1
5— 9 years	44.6	45.4	43.8
10—14 years	21.9	22.2	21.7
15—19 years	6.1	6.1	6.1
20—24 years	3.1	2.4	3.7
25—29 years	2.4	1.7	3.1
30—34 years	2.0	1.5	2.4
35—44 years	1.7	1.3	2.1
45—54 years	.4	.3	.5
55—64 years	.1	.1	.1
65 years & over ...	....	....	....

Of the 67 counties in the state, 55 registered scarlet fever deaths in 1933. The three highest death rates from the disease were in Cameron, Montour, and McKean counties. There were 32 counties in Pennsylvania whose scarlet fever death rate exceeded that of the entire state (2.7 per 100,000 population).

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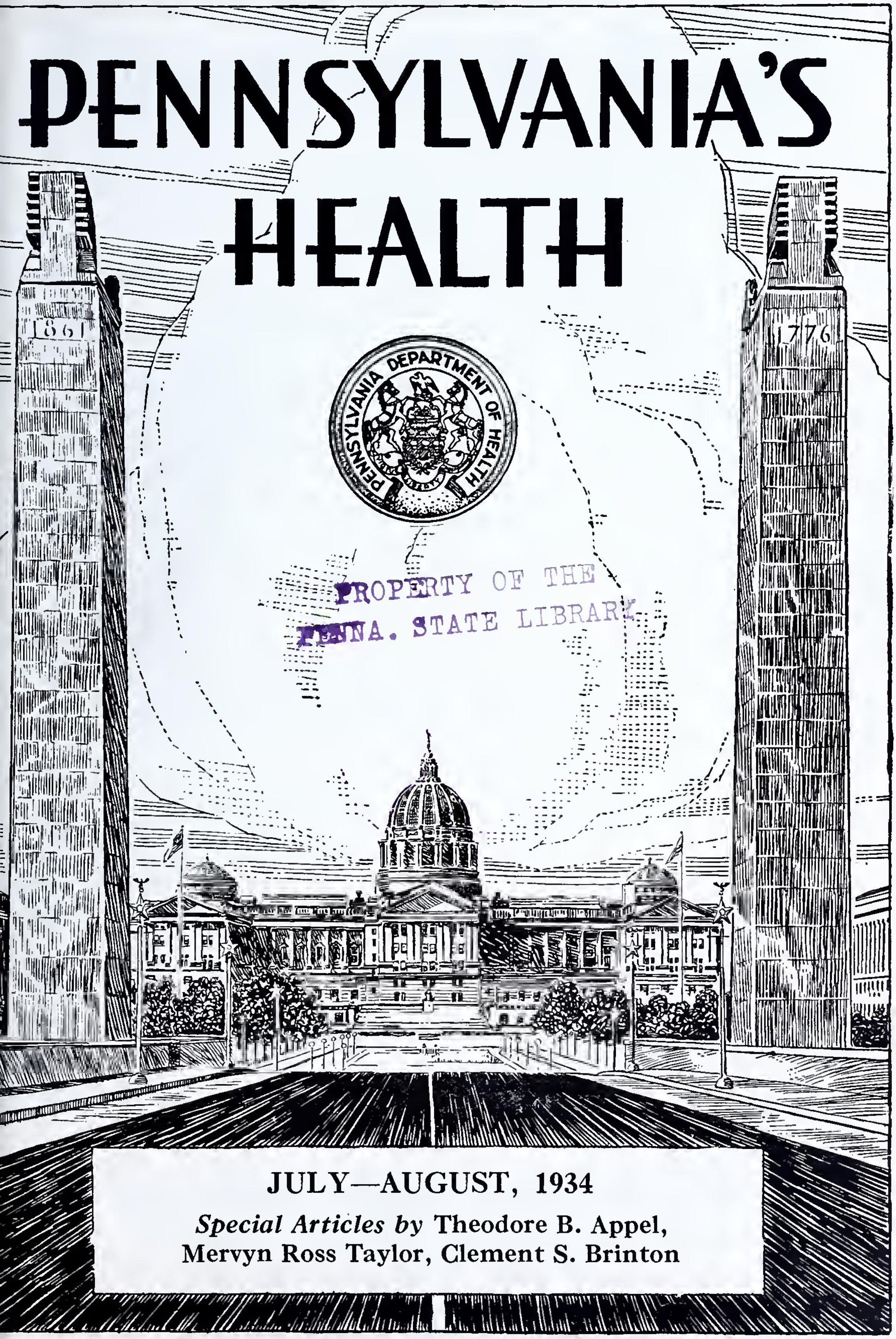

JULY—AUGUST, 1934

Special Articles by Theodore B. Appel,
Mervyn Ross Taylor, Clement S. Brinton

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Pennsylvania's Health

Official Bulletin of the Pennsylvania State Department of Health

THEODORE B. APPEL, M. D., Secretary of Health
J. CLARENCE FUNK, Sc. D., Editor

Vol. 12 Harrisburg, Pennsylvania, July-August, 1934 No. 4

"Acceptance for mailing at special rate of postage provided for in Section 1108, Act of October 3, 1917, authorized April 6, 1923."

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Published bi-monthly by The Pennsylvania Department of Health, Harrisburg, Pa. This Journal is free to the people of Pennsylvania. A request to the Editor, Department of Health, Harrisburg, Pennsylvania, will bring a copy of this magazine to your home without charge.

Editorial

ARE YOU INTERESTED?

WITH the increased growth of sanitary supervision, and the very logical and continuous publication of the really amazing results thereof, there has unfortunately developed an undue sense of security on the part of the average person. Moreover, this attitude has as its natural sequence the belief that official medicine has so generally invoked the protective factors of life as to make it quite superfluous to give health any personal concern whatsoever.

It follows that most persons become interested in bodily welfare only when something acutely goes amiss. With a not altogether excusable logic they then imagine that a few pills or a tonic prescribed by their physician will promptly set them on their feet again. And they are likely to become highly critical if the medico does not achieve a cure in record-breaking time.

Such a view is entirely too mechanical. Cures are not attained by removing a few bolts, disengaging the offending part, and quickly substituting a new and perfect one. Of course, that is the technique on the Speedway. But, after all, bodies are not composed of cleverly assembled parts. And one therefore cannot treat them after the manner of automobiles.

Which indicates that the individual must have a keener appreciation than he apparently has today of bodily limitations as well as those of official medicine and even of his personal physician.

True, amazing progress has been made in the public health, in the medical, and in the surgical fields within the last forty years. However, the necessity of being reasonably and habitually interested in one's own welfare is just as great today as it ever was. Nature still exacts the penalties for one's deliberate and consistent disregard of her demands. And all the health safeguards and the skilled efforts of the modern practitioner of medicine will be of minimum avail, if the Old Dame over a long period of time is deliberately slapped in the face or ignored.

Thus, in spite of mass control of disease and of the miracles of present-day medicine and surgery, one must be at least sufficiently alert to realize that a consistent adherence to the fundamental living requirements is absolutely essential to obtain full value on medical science.

To go madly on spending energy that is not possessed, to eat more or less than is good for one, to exercise not at all, to rely wholly on stimulants for zest, and in other ways to throw health discretion to the winds, is to display a criminal indifference to the one and only great worth while factor in life, namely, abounding health and the joy that accompanies it.

How much reasonable interest in this vital matter have you been displaying?

J. C. F.

LIMITATIONS OF OFFICIAL MEDICINE*

Theodore B. Appel, M. D.

Secretary of Health

NOT so many generations ago there were but three recognized learned professions—Law, Physics, Divinity. Now there are many. They have come into being so rapidly that in a comparatively short time a man or woman, so desiring, may gain the right to add to his or her name almost as many combinations of the letters of the alphabet, indicating the rights and privileges of membership in these newer professions, as appear in a directory of our national recovery program.

Some of these professions of recent birth are the results of the gradual elevation of trade or manufacture into the realm of science or art; others, as a result of specialization, are off-shoots of one or the other of the older professions. Of the latter type are Public Health and Public Welfare. Naturally, in the rapidly increasing complexity of modern society, the fields of the younger professions cannot at once be clearly delimited and there is often overlapping and waste of energy. This is particularly true where a given subject is approached from different angles.

In the Public Health field in Pennsylvania three official agencies are involved—the medical profession, and the State Departments of Health and Welfare. Medicine approaches the subject from the standpoint of the individual, Public Health from the relation of that individual to society en masse, and Public Welfare from the economic side in the interest of society as a whole. In addition, the great volunteer organizations, state and national in scope, with their forces of active and enthusiastic field workers, must be given consideration. Under such circumstances it is inevitable that there should at times be friction and misunderstanding of responsibility. Frequently the members of the medical profession feel that the officials of Health and Welfare, and also the agents of the larger organizations interested in health work, are overstepping their bounds. And this, unfortunately, with a certain amount of truth; particularly when the followers of newer professions feel that they do not receive full cooperation and support from the parent profession in their endeavors to accomplish an especial object common to both. On this account it is very important that there should be a definite understanding of the proper delimitation.

I am perhaps old enough and conservative enough to feel that the present trend is unfortunate, to believe that public health or official medicine should be considered rather as a definite part or speciality of the Art and Science of Medicine, rather than as a distinct professional entity. But the various sociological and economic problems that must be considered in the public health field seem to warrant a distinct professional entity. But if we grant this, the true relation demands close alliance and real cooperation in the service of humanity.

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*Address delivered at Tenth Annual Meeting, Pennsylvania Public Health Association.

Public Health Administration Defined

Public Health administration has to do with the prevention of disease and the preservation of the health of human society as a whole, whether it be community, state, or nation. Official medicine as it appears in the program, might well be limited to that part of the public health program having to do with the relation of the individual sick to society as a whole and the state's responsibility in protecting the latter. This should involve the medical care of the individual sick only so far as the presence of disease is a menace to the community. The responsibility for treatment should rest entirely on the medical profession, the state being responsible only in a cooperative sense in the securing of proper medical care to the indigent, and to such regulation of the social economy as to provide proper means in the shape of hospitals, etc., where the individual may receive the benefits of medical science, and to protect the public from quacks and charlatans.

But to come more definitely to the consideration of the limitation of official medicine. It may be that these limitations have nowhere been definitely charted; certainly there seems to be no unanimity of opinion in regard to details. The functions of health departments differ widely in various states, and the chaotic condition is emphasized by the multiplicity of departments and bureaus in our state and national governments dealing with public health questions. In Washington, these problems are handled by six departments and some twenty-three bureaus. In Pennsylvania, these responsibilities are shared by the Departments of Health, Welfare, Labor and Industry, Public Instruction, and Agriculture. Close cooperation and common understanding is necessary to avoid overlapping.

In addition, as the problems are necessarily approached from different angles involving not only the medical but also the social and economic, the difficulty of securing definite standards is readily seen. There is, however, a general agreement on the basic function of the use of the truths of preventive medicine to prevent disease and conserve the health of the mass of the people. From my knowledge of the statutes of other states, I am willing to go on record as to my belief that the Pennsylvania plan of administration comes nearer to the realization of the ideal than do the administrations of the other states, and that while in certain cases we do infringe in the treatment of certain classes of patients, such action has been made necessary by circumstances beyond control. I refer particularly to the questions of tuberculosis and the venereal diseases; our state clinics and sanatoria are compelled to take up the medical care of these diseases as a protection to the public and in attempts at rehabilitation.

Recognizing the responsibility of the state in the care of the indigent sick, the emergency conditions caused by the depression have emphasized the inadequacy of our present poor laws, and new legislation should be considered to provide the necessary machinery to insure adequate care of this class of society with proper consideration of the well established and recognized relation between patient and physician.

The Importance of Health Education

In the prevention of disease, health departments must depend almost entirely, and certainly primarily, on the education of the people in the means of prevention and the rules of health. We cannot legislate health or morals, and only as a last resort should the police power given in our health legislation be used, and then only for the purpose of protecting the mass from danger from the individual. Certain communicable diseases by their nature require quarantine laws, but these laws need for their successful application the willing cooperation of the individual, and also of the physician. As long as the foci of contagion is hidden these quarantine regulations will be futile in the control of epidemics. When, however, severe epidemics occur and the local machinery breaks down, it is the manifest duty of the state to assume control, and so organize the local medical profession and hospitals to end the danger. Such measures are not state medicine.

Very often as a result of the dissemination of knowledge of the means of prevention to the public, the demand arises for more activity than is evinced by the local medical profession. The knowledge of the preventive measures against smallpox, diphtheria, and typhoid by inoculation is broadcast, and if this is not made available, the demand is necessarily made on the state and municipal health departments. The biological supplies necessary for such protection have for years been furnished by the state, offers of cooperation have been made to the medical profession and our orders to our field workers in all campaigns are to refer, as far as possible, all applicants to their own physicians, but to bring about the ideal protection of the mass much greater cooperation is necessary.

In certain diseases by legislative enactment in Pennsylvania, the Department has to a certain extent overstepped the limits of prevention and possibly invaded the realm of treatment. In the crusade against venereal disease we have established numerous state clinics, where these cases are handled. Primarily, the purpose of these clinics is preventive, but to secure the proper control of many of the unfortunate, particularly among the indigent and criminal, certain treatment is necessary. Our binding instructions to the clinic chiefs are to refer those able to pay to an available specialist. In this phase we have, I believe, received little criticism.

In tuberculosis, we also have numerous dispensaries and conduct three sanatoria with some 2,500 beds. The dispensaries are primarily portals of entrance to the sanatoria, and also have a very important function in the following up of discharged patients. But for the indigent sufferer from tuberculosis, a certain amount of advice and treatment is necessary for the control of the disease. The sanatoria are for the treatment and care of indigent active cases, thereby removing foci of infection from the households and communities. Preference is given to the incipient cases for whom there is a reasonable prospect of cure and active cases who by contact with children are definite social menaces, while the old chronic patients with negative sputum are not favored. The public health aspect of the war against tuberculosis is emphasizing more and more the early detection of the disease in childhood or possibly weeding out prospective victims. Here a greater development of our school examination is indicated. In these two conditions the questions of prevention and treatment, involving as they do the removal of social menaces, are very closely interwoven, as is also the object of rehabilitation.

Child Care

Each year greater emphasis is laid on the care of the child as a preventive measure against disease. This involves both advice and instruction in the proper habits of diet and health training, as well as the early detection of defects. To accomplish this end we encourage and participate in the establishment of well baby clinics along the same basic principles as govern our school examinations. We well know that the children under school age are most prone to infection with diphtheria and other communicable diseases, and that many defects can be better corrected in this age bracket. Where these clinics are established the same instructions are given in regard to reference to the family physician, and I feel that here official medicine does not overstep its limits.

Work of the State Emergency Relief Board

Attention should here be called to the excellent work now being done in Pennsylvania by Doctor Hamill's central and local committees which, though to an extent is official in character through the State Emergency Relief Board, is sponsored by the State Medical Society and carried out through local committees from the component county societies. In a sense it will supplement the state-wide school examinations which we consider of major importance in the conservation of the health of the children. Under this system, used both by the State and Doctor Hamill's committee, the proper limits of responsibility are not overstepped in that the burden of advice and treatment is thrown upon the medical profession. The weak point is the difficulty of securing correction of defects among the children of the indigent. Where the parents of these children are unable to finance necessary treatment the entire burden of free treatment should not be placed upon the medical and dental professions, and here the responsibility of the state should come in as a welfare problem, that the underprivileged child should have a fair chance to develop into a normal and useful citizen.

In certain emergencies and in the face of epidemics, it is well within the police power of the state and municipality to compel the observance of such measures of control as may be required, involving quarantine, preventive inoculation, or actual treatment as may be necessary under the premises to control and end the prevalence of disease.

In one other function in Pennsylvania the Health Department has definitely gone beyond the limits of prevention—in the maintenance of a hospital for the rehabilitation of crippled children and the subsidization of field work. Recently we have very successfully inaugurated in a limited way the use of water gymnastics in early cases of infantile paralysis to prevent deformity. These activities are for the indigent and serve their purpose in protecting society from the necessity of future support of the handicapped. This may not be official medicine, but I believe thoroughly it is carrying out one of the functions of the state, and is neither state medicine nor paternalism.

There are many other functions of health departments than those mentioned above, concerning which there is no discussion as to the limitation of authority. No one questions the responsibility of health departments concerning the manifold activities of the sanitary engineering bureau, prevention of disease through food, water, milk, and environment, and it is probable that the greatest progress has been made in the prevention of disease by such supervision because there is no debatable ground.

I do not believe there is any danger in this country of any real development of "State Medicine." Each year I think the question is being better understood and the distinction between the responsibility of the state for the health of the mass and the responsibility of the medical profession for the treatment and health of the individual, is becoming more marked. One question must, however, be answered in the future in a better way than it is at present. We have with us the poor and the derelicts of society. They must be helped for they cannot help themselves, and if not helped both in individual cases and in the environmental conditions in which they live, they inevitably become a mass menace. For self-protection as well as from the humanitarian standpoint, the state has a definite responsibility and while official medicine must be involved to a certain extent, in the final analysis, the important factor is the care of the individual and the solution necessitates a definite cooperative plan between the state and organized medicine. This question is bound to become more important as years go by.

The work of organization for medical care of the unemployed under Dr. Harold Miller and his associates, endorsed and supported by the State Medical Society, cannot be too highly approved. But at best it is an emergency measure and must be followed up by some definite statutory regulation.

It is a recognized fact that the more free service is given, the greater is the demand, and the only danger of state medicine with all the evils that might attend it, is the grave tendency of certain sections of society to demand more and more from an increasingly paternalistic form of government. Here is where official and organized medicine must take a stand together. A mutual understanding of the limitation of responsibility of the several agencies involved in public health must eventually bring about a solution. It will need cool heads and careful thought finally to settle the question.

The Health Gnome Says—

Great men of past and present
  Have done much for people's health;
Thus to killing germs and poisons,
  Telling blows are daily dealt.

In fact, Science and Discovery,
  Are on a Golden page,
For their conquests and discoveries,
  In this great day and age.

Typhoid, diphtheria and smallpox,
  And a host of other foes;
Have been captured in their lairs,
  Thus reducing human woes.

But all the vaunted progress,
  And all the vaunted skill;
Are of slight avail to the man who thinks
  He can snub health to his fill.

For while Medicine and Surgery,
  Can do miracles in their way;
Nine-tenths of the job of keeping fit,
  Remains man's work, to this day.

J. C. F.

MEDICINE IN INDUSTRY*

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INDUSTRIAL Medicine spoken of as a new specialty, dealing in the application of medical science to industrial needs, is but an outgrowth of the old-fashioned company surgeon who existed for many years long before workmen's compensation laws were even dreamed of. Neither industrial hazards nor the dangers attending certain occupational exposures are new, for lead intoxication was described by Dioscorides in the first or second century after Christ. He described not only the colic but also the paralysis incident to this condition. Pliny was also familiar with the hazards attendant upon lead processes and suggested methods of prevention. However, as the years advanced, as the science of chemistry has progressed, as human needs have multiplied, as industrial processes have developed and multiplied to meet those needs, so has the use of dangerous substances and processes, and so have the number of exposed workers increased.

The problem of occupational disease is one of the foremost within the range of our present industrial vision. It is true that a decade or two ago the scope of a company surgeon's work seldom extended beyond the care of accidental injuries. In other cases he contracted with the industry to render complete medical service not only to the employes but to their families as well. This involved every form of medical attendance, including medicines, for which the industry deducted an amount from the worker's pay each week to meet these costs. Means for laboratory assistance as an aid to diagnosis were seldom available, and when undertaken were most inadequate and often unreliable. Practically no attention was given to plant safety, hygiene, or to the lessening of occupational hazards. The doctor's day was just too full to permit giving such matters his attention; besides, the industry did not hire him for such purposes. This was the so-called type of contract practice now fallen, and wisely so, into disrepute.

However, out of this past has evolved a new order of things. First, a new type of industrial physician, one whose aims and aspirations point not so much to the treatment of afflicted workmen as to the prevention of accidents and disease. Second, industry now demands safety and prevention, and looks to the plant physician to study these problems and show results.

Many serious though interesting problems still face the modern industrial medical field. One is the educational preparedness for this special work. The vast majority of men now engaged in this medical industrial pursuit secured their training through the school of experience. They took their medical knowledge and their natural ability into the industry and there built up an experience upon which practically all of our information regarding the organization and administration of this activity is based. Until a physician or surgeon has had this experience he cannot appreciate wherein industrial medicine differs from that of private practice.

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*Address delivered at Tenth Annual Session, Pennsylvania Public Health Association.

Several universities and colleges teach industrial hygiene and several have lately extended their curriculum to include instruction in industrial medicine. There are still too few colleges existing where a comprehensive knowledge of this special work may be obtained, but until more colleges offer students in medicine this special instruction, industry must be content in obtaining physicians without specialized knowledge beforehand and trust that perhaps through long years in the school of experience observing and studying the industry's several complicated processes, ultimately an efficient and valuable medical officer may develop. We do know, however, that today, without special training, the type of physician who is attracted to this work has greatly improved, so that in contrast to the near past there is evolved a new type of industrial physician who, at the outset, realizes he is undertaking one of the most important types of human conservation movements and which is a far-reaching arm of public health work.

Goggles Are Indispensable Industrial Safety Aids

All of the larger, more important and most progressive industrial enterprises in this country and abroad now have their medical organizations. These are not of the make-shift type. Big business more and more is regarding as significant those flesh-made machines we call men and women. It realizes that human waste is not economical. Thus, it is demanding a type of medical organization which aims to protect the employes' health and maintain it in the highest state of working efficiency. In turn, this means to the employe greater production, higher morale, greater contentment, increased earning capacity and less absence due to sickness and accidents.

No medical supervision in industry is complete without a periodic survey of the plant, a study of its working processes and a knowledge of its raw material and by-products, all of which are so important in determining the hidden causes of many occupational diseases and intoxications. Besides those mentioned, there are many other functions which the trained medical staff must institute in order properly to function and bring results in a comprehensive industrial health program.

Most important is the applicant physical examination. This ascertains the individual's physical fitness for work. It prevents the entrance and spread of contagious disease. It enables the applicant to be placed safely at a type of employment suitable and not inimical to his health, especially if he should be physically handicapped in any way. Careful note is made at this time of his physical defects, and advice is given him of any recommended corrections; for example, diseased tonsils, tonsillectomy advised; abscessed teeth to be removed and other dental recommendations; hernia present, recommend wearing of a suitable truss or surgical correction. To such an examination many thousands of workers in industry owe their present state of good health, for had they not been urged before or shortly after employment to have these defects corrected, when correctible, organic disease, doubtless, would have soon made serious inroads upon their health.

The periodic physical examinations function in the same way except that these, in addition, give the industrial physician an accurate health map of the entire industrial organization. Those employed in hazardous occupations may have to be examined quarterly or more often to determine early signs of occupational disease. Those employes off duty because of illness or accident are routinely examined before being allowed to return to their work. By this procedure many a case has not been permitted to resume his or her work by the plant physician when they had already received the approval of their private physician to do so. The private physician in such a case obviously had no knowledge of the nature of the worker's job, the materials handled, the conditions under which he worked or the operations and activities he would be called upon to resume. Thus, many cases of relapsing illness are prevented by the plant physician and by his good judgment in recommending a further leave of absence to the employe until completed convalescence had been secured. Many other employes examined are given half-time work for a number of weeks or modified full time work of an easy nature in order to insure their gaining a full momentum in strength to carry them safely over the top before they assume the full burden of work.

Another wide-spread industrial hazard demanding the increasing attention of industrial physicians in certain industries is silicosis, causing an appreciable increase in the death rate from ultimate pulmonary tuberculosis among those exposed to this form of dust. No sizable industry with medical supervision can operate over a period of years without being impressed with the marked decline year after year in the number of employes discovered who are the victims of pulmonary tuberculosis in one or more of its advanced stages. Just as surely as an industry sets up a systematic physical examination program for its employes, so there will be found a general decrease year after year in the total number of cases seen who are victims of the disease. It is also impressive to note that as the years go by those having minimal lung involvement take the place of the formerly advanced cases seen and form nine-tenths of the discoverable types thereafter when previously it was the reverse. Thus, by discovering the disease in its incipiency the toll of death is decreased and, more important, a larger proportion of employes are returned after a short regime of treatment to resume their gainful occupations.

Back on the Job After Illness—Under the Industrial Surgeon's Careful Eye

Diphtheria is a disease requiring constant alertness on the part of the physician in industry to prevent its becoming epidemic. Fortunately, it can usually be diagnosed early by adequate laboratory methods. Every employe reporting with a suspicious throat condition is taken away from work, his throat is cultured and all other employes who have been closely associated with him are given the Shick test or immunized as well as being closely observed for several subsequent days.

One of the most obstinate conditions to prevent in certain manufacturing establishments is dermatitis. Forty or more diseases of the skin have been definitely found to have industrial origin; and 10 per cent of all skin diseases are definitely occupational dermatoses. In this condition individual susceptibility plays an important role in its development. I know of no condition which will tax the ingenuity of the industrial physician more than the problem of its prevention and control.

Industrial medicine is assisting in the prevention of allergic asthma, which is on the increase, largely because of individual susceptibility to certain atmospheric conditions involving chemical fumes, minerals and foreign proteins thrown into the air in manufacturing establishments.

Tetanus now seldom develops from industrial accidents. Workmen receiving punctured wounds and other wounds of a suspicious character receive routinely an immunizing dose of antitoxin; others, whose environment and type of work expose them to this form of anaerobic infection, as in soil handlers, are given tetanus toxoid to create a more lasting immunity.

The common cold, possibly the greatest single contributing factor to illness and lost time, causing as it does millions of hours of absence from work, has not been overlooked in our preventive industrial program. Realizing its prevalence, contagiousness and the serious sequelae and its complications, the latter following closely in its wake with resulting high mortality and even higher morbidity, industrial physicians have started a crusade for its control, knowing that at the present time there is no drug or any definite means of prevention. The basis of activity has been along the lines of instruction in personal hygiene, aiming to increase the individual's physical resistance. There have been certain measures carried out in groups of employes aiming to prevent its incidence and spread, but up to the present time little value has accrued from any of these efforts.

In this short paper I have endeavored briefly to sketch a few thoughts, hoping that you may be able to see the great humane, social and economic problems that industrial health presents to employes, workers and citizens. I have tried to show what an outstanding agency for public health work it is. I have also emphasized that the solution of its problems lies solely in the prevention of disease. And lastly, that for industry to obtain the best results the physician must be highly trained in his specialty. His knowledge must include mechanical processes, toxicology and psychology. For industry needs medical aid not only in caring for accidents, but in meeting the threat of its occupational disease, as well as in all of its activities involving personnel.

Thus appears the definite professional specialty, industrial medicine and surgery. The medical profession at large must recognize this specialty and all that it implies with full respect. Industrial medicine on the other hand must keep within its specialistic bounds and never encroach upon the true prerogatives of the private doctor, if it is to live up to its highest traditions.

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FOOD POISONING*

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FROM time to time, especially during the summer, every health and food inspection official receives an emergency call to investigate sudden outbreaks of illness not due to the common diseases, and involving several people, and sometimes a large group.

The Philadelphia Station every year has a few outbreaks of this type to follow up. I believe this audience will be interested in the history, the cause and the conclusions to be drawn from some of these investigations.

Several years ago a serious explosive outbreak affecting a large group of soldiers and sailors occurred on one of our Pacific Island possessions. All affected had serious stomach trouble, persistent vomiting and the other symptoms of zinc poisoning. Investigations made at once soon eliminated all possible causes common to all affected except root beer. This root beer, charged with carbon dioxide, had been prepared or cooled in galvanized tubs or buckets. The acid in the root beer dissolved enough zinc to cause typical and violent cases of zinc poisoning.

This Picnic Group, Thanks to Zinc-Lined Containers, Became Ill From Drinking Orangeade

Another similar outbreak occurred about four years ago on a hot summer day, at a picnic near Reading, Pa. Shortly after lunch, a violent and explosive outbreak of illness occurred, a hundred or more persons, including men, women and children being affected within a short time. All had cramps, persistent vomiting, and many collapsed.

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*Address delivered at the Tenth Annual Session of the Pennsylvania Public Health Association.

Panic reigned. Some were taken to hospitals. None had any of the character symptoms of botulism mentioned later herein, except nausea. After the excitement was over, and a systematic investigation started, it was found that all taken sick had consumed iced tea obtained at one lunch-stand on the grounds; and that only those using the iced tea from this single source had been sick. Further investigation showed that because of the hot weather and the unexpected demand for iced tea, the usual containers in use at the lunch-stand were too small. It is believed that galvanized or zinc containers were pressed into use, as examination of some of the iced tea showed much zinc present. It is possible that lemon juice, or other acid added to the tea, dissolved sufficient zinc to have caused the trouble.

These two outbreaks illustrate the dangers of using zinc or galvanized utensils or containers around the home or where food is prepared. They were typical cases of metallic poisoning.

In these days almost every household and food-handling establishment, large or small, buys and uses some form of insecticide. The farmer and fruit grower uses these poisons in large quantities. Some of these insecticides have characteristic colors, as paris green or London purple. Unfortunately, those in most common use at the present time are white, and closely resemble, as prepared for use, articles used in every kitchen such as salt, granulated or powdered sugar and wheat flour. This Station had to investigate a few years ago several persons in more than one family, who had developed severe cases of chronic arsenical poisoning. In one family three were affected—the wife and mother most seriously. She, after other symptoms had disappeared, had an almost complete paralysis of the lower limbs. This arsenical poisoning was traced back to a one pound can of baking powder. Every time biscuits or other food was prepared from this can of baking powder, the symptoms of arsenic poisoning were noted, not only in all the family, but in all guests present. We were never able to ascertain how the arsenic got into the baking powder, but believe it must have been added accidentally in the home, as other cans of the same brand and from the same lot as the can causing trouble, were free of arsenic. Cans purchased elsewhere, and investigations at the factory showed absence of arsenic.

Only a few months ago complaints were received that flour used by at least three families in the same town was causing illness every time the flour was used. Investigations soon showed that all flour involved came from a nearby store, and was bought in five pound bags on the same date; that the flour sold in these small containers was bought in bulk and filled into the sack at the store; that roach powder had been stored on the shelves near the flour barrel from which the sacks were filled. Tests made on the flour causing illness showed fluorides present in considerable amount.

In these last two outbreaks gross carelessness in the storage and handling of dangerous poisons in the household in the first instance, and in a store in the last, caused the trouble.

The most frequent cause of food poisoning outbreaks are bacterial poisons resulting from the improper and insanitary preparation and storage of foods.

Several decades back all unexplained outbreaks were attributed to "ptomaine poisoning." More recent investigations have shown that the old "ptomaine" theory was entirely wrong; and that the causative agent was of two types. In one, certain resistant bacteria which grow in the absence of air produce a violent poison or toxin. Food containing this toxin is more or less decomposed, and when eaten by man or animals produces the disease known as "botulism." The symptoms which identify a case of botulism are—first and most important, double vision; next, nausea, inability to swallow, impairment of speech, with accompanying marked general weakness and loss of muscular control, and finally, respiratory paralysis. These symptoms are almost invariably delayed and generally do not appear for twelve hours or longer after the decomposed food is eaten.

Cases of botulism are now becoming quite rare, due to improved technique in the preparation and processing of canned foods, both in the home and factory. Unfortunately, nearly every year cases of botulism from home-canned underprocessed foods are reported. The question will arise in your minds, "How can I avoid botulism?" The answer is, "Discard at once, without tasting, the entire contents of every container of canned food, either in glass or tin, prepared at home or in the factory, which is abnormal in any degree." Cases of death from botulism are on record where the patient tasted and immediately spat out the poisonous food, yet sickness and death resulted.

Food Prepared Under Scientific Supervision is Safe Food

If one must use such questionable food, then add an equal volume of cold water and boil vigorously until the volume is reduced to that originally had. This heating process will destroy the toxin which causes botulism.

The second and more common type of bacterial food poisoning has symptoms entirely different from those mentioned for botulism.

The usual type of bacterial food poisoning has the following symptoms which generally appear within a very few hours after the contaminated food is eaten; that is, vomiting, fever, abdominal pains, diarrhea, general weakness and prostration. Cases of this kind are common every summer, and recovery soon sets in after the system is cleansed of the offending material.

What are some of the causes of this kind of food poisoning? Careless and unclean methods of preparing food which is subsequently improperly stored, sometimes in overloaded refrigerators, or in such large quantities that it never is chilled in the center of the mass. These conditions allow the contaminating bacteria to grow in an ideal medium and to be ready to cause serious trouble when the improperly prepared or stored food is eaten.

A typical explosive outbreak of this kind occurred about three years ago during the annual encampment of the State National Guard at Mount Gretna. The Philadelphia City Troop was entertained on Sunday at a buffet luncheon at the home of a prominent citizen in a nearby town. Before the party was over most of the guests, the host and hostess, and all the servants were suddenly taken seriously ill with vomiting, diarrhea, etc. Some of the guests had started back to camp and were taken sick en route. Others became ill after return to camp. Investigations started at once showed that no canned food was involved; that all food had been prepared in the home where the luncheon was served; that the menu was simple and consisted principally of chicken salad, with another cold meat dish; that only those who ate chicken salad were involved; that the chickens had been obtained locally, killed and cooked on the preceding Thursday; that the chicken salad was mixed on Friday and held in large containers in the refrigerator until served at the luncheon. No samples of the chicken salad could be obtained for testing, as the servants had eaten all not needed for the guests. No definite conclusions concerning the cause of this outbreak can be made; but it may be deducted from available facts that someone did not use proper precautions in preparing the chicken salad, which was probably held too long in an overloaded refrigerator which could not chill the food therein and prevent the growth of the contaminating organism.

In the limited time allowed for this paper only a few types of food poisoning can be mentioned. In every example noted herein carelessness or ignorance was the cause.

The investigation of food poisoning cases is far from simple, no two being alike, and the primary cause frequently difficult and often impossible to locate. In all such investigations, at least two men, preferably four, should participate, each with different training and experience. The Bureau of Chemistry and Foods, of the Baltimore City Health Department, has given much time and study to the character of investigations to be made of these outbreaks. They have prepared a group of carefully designed questionnaires, one to be filled out for each person involved. They recommend that a group of investigators include a chemist, a bacteriologist, a physician and a well trained inspector. Even with this group of varied training, they have not been able to locate the cause of all types of food poisoning brought to their attention.

In closing, I want to emphasize the need of prompt and thorough investigation of all cases of suspected food poisoning. The important details of these investigations should be published where they will be seen by all Health and Food Inspection officials.

DEPARTMENT NEWS

SWIMMERS TAKE WARNING—With outdoor swimming and bathing attracting young America, the Department calls attention to certain necessary precautions. Already swimming fatalities are being reported. It is only by observing certain fundamental common sense rules that Pennsylvania's annual list of accidental drownings can be lessened. Over-confidence and over-exertion are two of the worst enemies of the swimmer, young or old.

While most accidental drownings are within the group up to age twenty, nevertheless an astonishing number of so-called expert swimmers become victims of their own folly. Over-confidence and venturing into unknown depths, desire to demonstrate expert prowess, swimming too soon after heavy meals and in the high heat of the day are common causes of fatalities. Another imprudent act, the Department indicates, is long-distance swimming and diving, which may cause over-exertion of the heart and lungs with sudden cramps, collapse and death. In issuing the warning the Department also advises the wisdom of swimming under competent supervision. Isolated spots may be beautiful and restful, but are often dangerous.

Thought also should be given to the hygienic condition of the water. Supervised pools and swimming places are not likely to contain polluted water which, among other conditions, can transmit inflammatory infections of the upper respiratory tract, diseases of the eye, injury and infection of the ears, skin and intestinal tract.

In other words, swim by all means if you have the heart and physical stamina to do so, but swim prudently.

Avoid Even the Possibility of Invoking the Life-Saving Procedure

TOXOID GUARDS CHILDREN—Diphtheria has been amazingly reduced in Pennsylvania during the last decade. All children can be protected against this disease. It is afforded by the hypodermic injection of a harmless fluid—toxoid. One injection will do the work.

The Department's bureau of nursing reports that since April toxoid has been ordered for 8,023 persons. This preventive was requested by state health nurses following a field survey embracing baby health centers, pre-school sections, schools, and communities at large.

This activity was designed primarily to benefit individual school children. Before toxoid is ordered or administered it is necessary for the parent or guardian to sign a "consent slip." This authorization gives the child's name and age, and requests protection against diphtheria by the injection of toxoid and, later, the Schick test to determine the result of the treatment.

According to Mrs. Mary S. Evans, head of the bureau of nursing, 9,360 consent slips have been received from her field force since April 1st. Needless to say, the nurses do not administer the toxoid to the child, but secure the services of a competent physician.

It is not too much to say that a fatal case of diphtheria in Pennsylvania today represents either criminal neglect or unfortunate ignorance on the part of the adult responsible for the child's welfare. In the light of science and available facilities even one death in Pennsylvania from diphtheria in a year is one too many.

NEW FURLOUGH PLAN—The Department recently announced a new furlough plan designed to benefit applicants for admission to the state tuberculosis sanatoria. Under this scheme, cases successfully receiving artificial pneumothorax treatment will be released earlier from the sanatoria and returned to their homes.

The Furloughed Are Chosen From Groups Like This One at the Hamburg Sanatorium

However, this does not mean that the Department's tuberculosis section will neglect such cases. Already a number of additional tuberculosis clinics have been established through which the furloughed patients will receive expert medical attention. Field nurses and clinicians will closely check on such cases. Should a patient not exhibit sufficient improvement at home, the furlough will be recalled and the patient returned to the sanatorium.

This plan should prove of great benefit to the individual patient because it will enable him to be with his family and friends. Moreover, the patient while enjoying home surroundings will also have the advantage of close observation by Department workers and thus will be receiving carefully supervised treatment.

In addition to aiding the patient, this procedure will increase the case turn-over at the respective sanatoria and thus materially lessen the waiting time of prospective patients.

SKIM MILK PERMITS—The milk control law in Pennsylvania requires all persons selling milk to obtain a permit from the State Department of Health. This provision applies to vendors of skim milk also. Recently it has been noted that despite this fact a number of butter creameries in eastern Pennsylvania have been selling this product to the producers and others who call for it bringing their own containers in direct violation of the regulations.

The Department, through its bureau of milk sanitation, has again advised owners of creameries that they must obtain permits before this practice can be justified.

HEALTH CAR TOURS—Dr. Mary Riggs Noble, chief of the preschool division, recently announced that the Department's health cars will visit the following counties during the summer months: Bedford, Somerset, Schuylkill and Crawford.

Early Inspection Data Saves Disease

The purpose of the tours is to make possible free physical examination for infants and young children who otherwise might be deprived of expert professional attention of remedial defects.

Each car carries a complete staff of two doctors, two dental hygienists and two nurses. The motor units are not dispensaries. No medical service or treatment is given. The point of the tour is to make physical examinations to reveal defects in children under school age with the hope that the necessary corrections will be undertaken locally. It is expected that approximately 9,000 children will thus receive attention before Labor Day.

CHILD VISION STUDY COMPLETED—Results of the special "eyesight" study conducted by the school division among school children of the fourth-class districts were recently announced. A total of 150,000 youngsters have been examined by the field personnel in these districts. A complete report covering each child has been submitted to the Department; these show that 5,239 of those examined have serious visual trouble.

"Visual defects cannot be neglected if the eyesight of our children is to be preserved," comments Dr. J. Bruce McCreary, deputy secretary of health. "Unless such defects are corrected, many of these children will suffer ultimate blindness and become a real problem for the Commonwealth."

In order to clear up the situation the Department, in cooperation with the Department of Public Instruction, recently advised the county superintendents of the gravity of this problem. Each superintendent has received a list containing the names and addresses of all affected pupils in his district. The communication gave the result of each pupil's vision test, and indicated the urgency for immediate corrective measures.

The proverbial "stitch in time, ' thanks to this survey and follow-up work, can thus save many eyes that in later years inevitably would be darkened.

HEALTH-OFFICER INSTRUCTION—Twenty-five Department salaried health officers and eleven borough health officers recently received a course of instruction in public health and sanitation at the United States Medical Field Service School, at Carlisle. Owing partly to the unusual turnover in the Department's force and also because no course of instruction at Carlisle has been offered for several years, the number of men who attended was larger than usual.

The course was of six weeks' duration and was under the exclusive direction of the medical officers at the school.

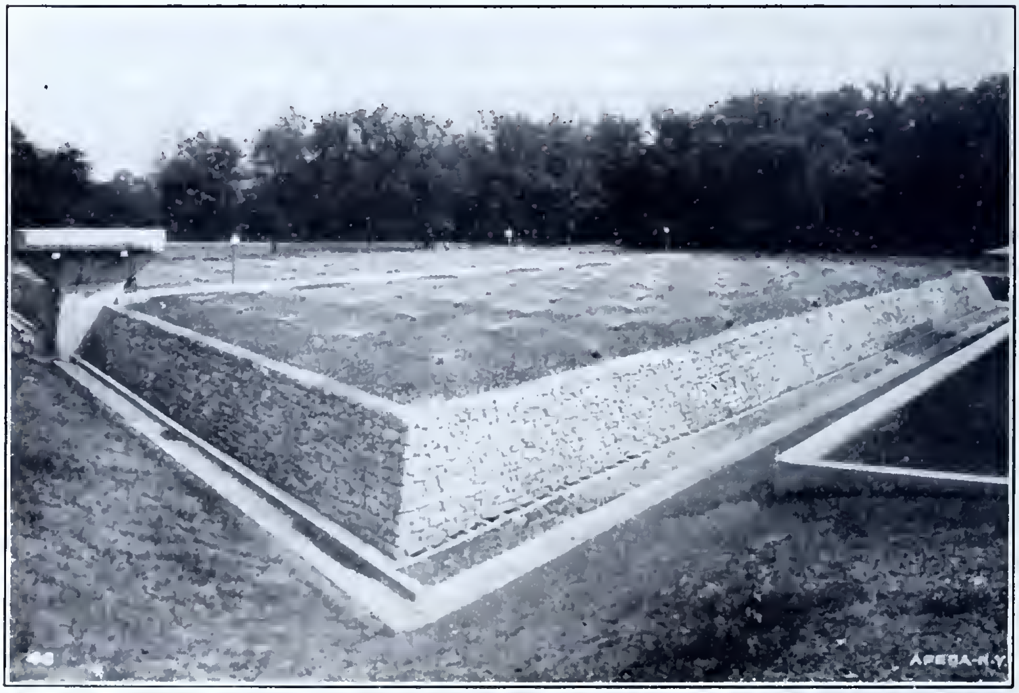
"ALARM SYSTEM" TO PROTECT WATER—Pennsylvania water consumers along the Beaver river are now being protected through cooperation between the health departments of Pennsylvania and Ohio. The river districts where by-products of coke are developed, even on the largest scale, need no longer endure pollution of the public water supply through the discharge of phenol wastes from by-product coke plants.

The solution of the phenol waste problem has been made possible through an "alarm system" developed by the Department in conjunction with the Health Departments of West Virginia and Ohio.

Due to the interstate character of the streams in the by-product coke oven districts of these three states, they were pioneers in this public health move, which now embraces eleven jurisdictions.

"Phenol elimination plants are serving a splendid purpose," recently commented W. L. Stevenson, chief sanitary engineer. "Nevertheless, accidents do happen and escaping phenol reaches and contaminates the water of adjacent streams. It is at times like these that the "alarm system" operates.

"The plant where the accident occurs at once notifies the Department which, in turn, immediately advises the Departments in the other states through which the affected stream flows. All water-works down stream are also informed.



Even Telegraphic Safeguards Now Protect the Safety and Palatability of This Water

"This advance warning enables the water-works authorities to throw in service their emergency remedial measures. Thus the unsuspecting consumer is the unconscious beneficiary of scientific protection against offensive tastes and odors in his drinking water."

There is a romantic story in a glass of safe water which most of us fail to realize. The checks and balances of a modern water-works system is an interesting, intricate and highly developed scientific activity. However, being unseen by the most of us, we take its results as a matter of course—after all a very human trait.

Vital Statistics Comment

MORTALITY FROM ACCIDENTAL CAUSES IN 1933

Florence Hardy
Assistant Statistician

THERE were 7,343 deaths from accidental causes in Pennsylvania in 1933. While this total was 4.9 per cent higher than that of 1932, it was one of the lowest in the past twenty-eight years. The number of deaths and the death rate of 74.0 per 100,000 population represented the sixth leading mortality cause in the state last year. Since 1922, the annual loss of lives from accidents in Pennsylvania has been greater than the toll taken by tuberculosis. From January 1, 1906, up to January 1st of the current year, 224,489 fatalities from accidents have been recorded. A quarter of a century ago the leading causes of these deaths were mine and railroad accidents. Today, the motor vehicle is the greatest single killer.

In 1906, the automobile caused 19 deaths, while in 1933 the fatalities numbered 2,278. Of these, 53 were deaths from automobile and railroad train collisions, and 34 from automobile and street-car accidents. Last year, accidental falls, resulting in 1,724 deaths, were second in mortality importance, with burns (including conflagration) ranking third.

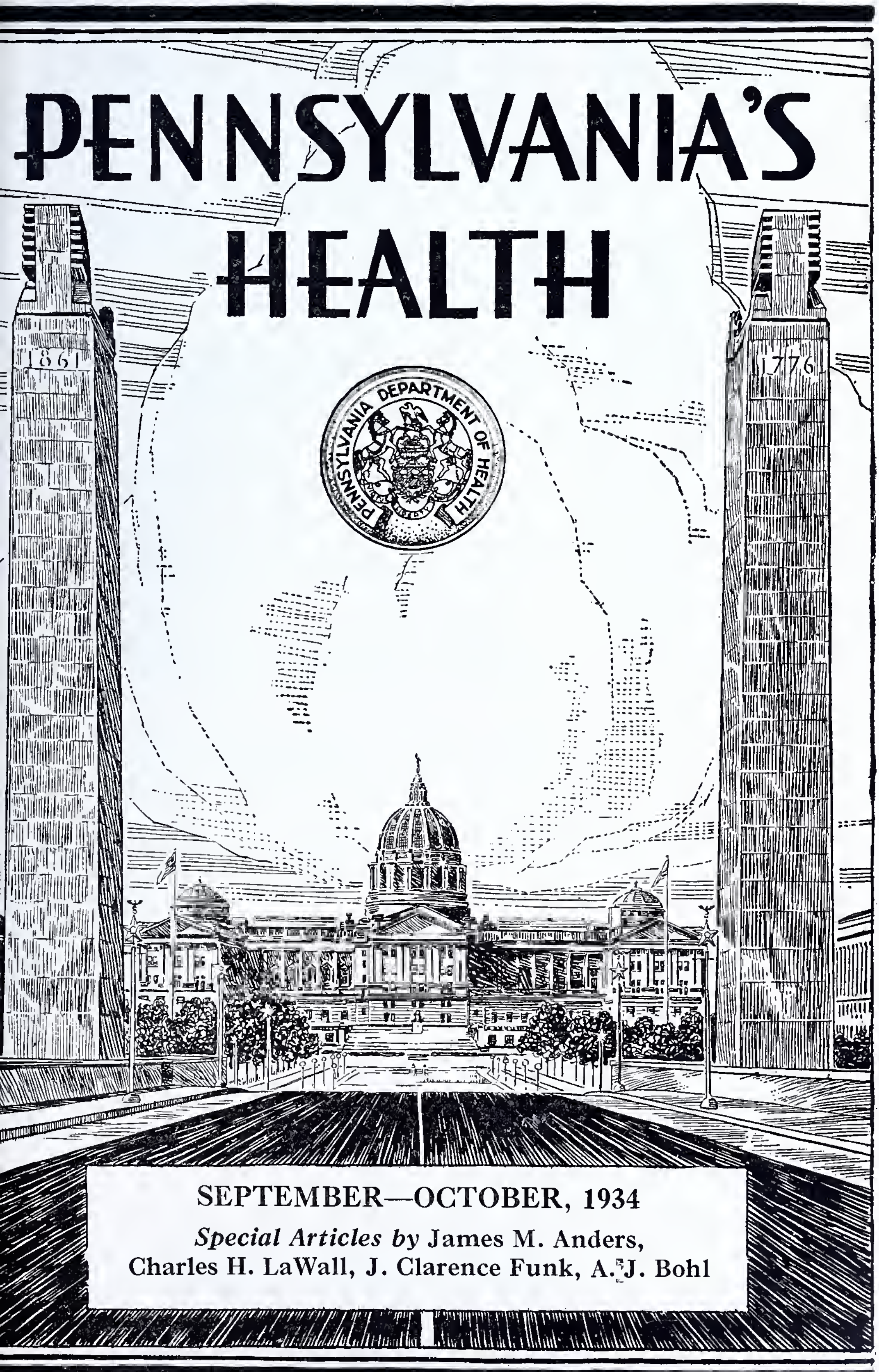
Of the 7,343 fatal accidents recorded last year, the greatest number occurred in July and the lowest in March. The percentages for each month in 1933 compared with the corresponding figures for automobile accidents follow:

MONTH	ALL ACCIDENTAL CAUSES		AUTOMOBILE ACCIDENTS	
	Deaths	Percentage	Deaths	Percentage
TOTAL..........	7,343	100.0	2,278	100.0
January..............	574	7.8	143	6.3
February............	504	6.9	149	6.5
March..............	476	6.5	141	6.2
April................	536	7.3	166	7.3
May.................	566	7.7	175	7.7
June.................	711	9.7	153	6.7
July..................	727	9.9	188	8.3
August..............	699	9.5	199	8.7
September...........	577	7.9	227	10.0
October.............	626	8.5	257	11.3
November...........	657	8.9	228	10.0
December...........	690	9.4	252	11.0

The number of male deaths from accidental causes last year was more than double that of females, and fatalities among Negroes constituted 4.9 per cent of the entire total. The highest mortality from these causes occurred in the ten-year age group 45–54 years, inclusive. The high peak in the male deaths was also in this age period, while the maximum in female casualties was reached in the oldest ages, 75 years and over. With the single exception of this age group (75 years and over), the male deaths outnumbered the female fatalities in every age period. Last year, 497 accidental deaths were registered of children under five years of age, and of this number 122 were infants under one year old.

In Pennsylvania, in 1933, unusual accidents resulted fatally in many cases. Attack by venomous animals was fatal to six persons. Privation (hunger and thirst) caused nine deaths. Lightning killed 24, elevator accidents 17, motorcycle accidents 39, and air transportation accidents 13.

PENNSYLVANIA'S HEALTH



SEPTEMBER—OCTOBER, 1934

Special Articles by James M. Anders,
Charles H. LaWall, J. Clarence Funk, A. J. Bohl

Pennsylvania's Health

Official Bulletin of the Pennsylvania State Department of Health

THEODORE B. APPEL, M. D., Secretary of Health
J. CLARENCE FUNK, Sc. D., Editor

Vol. 12 Harrisburg, Pennsylvania, September-October, 1934 . No. 5

"Acceptance for mailing at special rate of postage provided for in Section 1108, Act of October 3, 1917, authorized April 6, 1923."

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Published bi-monthly by The Pennsylvania Department of Health, Harrisburg, Pa. This Journal is free to the people of Pennsylvania. A request to the Editor, Department of Health, Harrisburg, Pennsylvania, will bring a copy of this magazine to your home without charge

Editorial

HOW TO GET THIN

AMERICA is a land of enthusiasms. Nothing is done by halves. So it is that we have the biggest and best of this and that; and devote our energies to making superlatives even more so. If any one doubts this statement, consider food fads for a minute and reduction efforts in particular.

To say that hundreds of young women, and women not so young, have killed themselves during the past decade by senseless and excessive dietary and reduction practices is but to state a very true though sad fact. Caught in the wave of mass psychology which emphasized the so-called athletic figure, legions of misguided members of the feminine contingent were attracted to everything ranging from the highly dangerous unsupervised "Eighteen Day, Eighteen Pound" method to equally hazardous drugging and lopsided food practices. Premature funerals, not to mention countless prolonged illnesses, just naturally followed.

And while the popularity of a certain fascinating movie queen recently has to a measure given the natural curves of the feminine form their rightful place in the sun, there are still innumerable women possessing fat mothers though thin themselves, and an army of others a few pounds overweight, who have developed the thin complex almost to a psychopathic point, if not altogether so.

For example, one young lady who is sadly in need of more flesh on her frame, keeping the spectre of an obese mother before her, has consistently deprived herself of potatoes, sugar and starches in general. She is almost a semi-invalid, but continues to pick at her food obsessed with the fear of becoming fat.

Another young lady, stout by nature but not too stout, is now inhaling cigarettes by the carton in the hope that she will lose weight. She apparently has lost sight of the downright cruelty to her body that such an excessive practice, if persisted in, will represent.

Yet another woman, no longer of tender years, is indulging in pills alleged to contain di-nitrophenol, a drug which yet remains to be proved to be a safe reduction agent.

Nowadays, men also are becoming highly waist-line conscious. And hence bananas and skim milk, starvation diets, and reducing drugs are making new friends in great numbers among the males. Incidentally, a physician recently died because he unwisely used di-nitrophenol to remove his superfluous flesh.

All of which goes to prove that the way to get thin is first not to get fat; and second, if overweight then to see one's physician and be guided by his directions.

Moreover, in approaching this subject, the law of moderation needs emphasis. Normal weight is not a sickly thinness. For many it may mean a flesh coverage above the average. Thus, in the question of weight the rule of "Be yourself" should dominate.

In short, to become over-enthusiastic on weight to the point of self-administered faddistic treatments is unwarranted in every case. Decidedly, it does not pay to go "loco" where fat or imagined over weight is concerned.

J. C. F.

THE PUBLIC HEALTH DAY MOVEMENT IN PENNSYLVANIA*

By James M. Anders, M. D.
Philadelphia Board of Health

IT was with a view to bettering the health of the citizens of Philadelphia, that the speaker, in an address delivered before its Civic Club in 1915, suggested a Public Health Day. The following year such a day was celebrated. The Civic Club, The Department of Public Health, The County Medical Society, The Public Schools, The Philadelphia Health Council and Tuberculosis Committee and other organizations co-operated.

In 1917, the observance took the form of a mass-meeting held at the Academy of Music; it was addressed by William H. ("Big Bill") Edwards, former Street Cleaning Commissioner of New York City. In closing his address he stated: "Philadelphia has taken a step in advance of all other American cities by discussing, at a meeting like this, what should be done to increase our interests in municipalities during war-time and the attention that should be given to cleanliness." At this meeting it was my privilege to introduce a resolution which was unanimously adopted, establishing a day to be called Public Health Day.

Philadelphia enjoys the distinction of being the only large city in the country that has annually focused attention on efforts for the communal promotion of health for nearly thirty years.

The Need of Preventive Information

A sedentary life among adults and persons of mature age has reduced to a considerable extent, resistance to endurance and hardships. The original Public Health Day Committee recognized the fact that every possible assistance is needed to spread such propaganda as will help to educate people in guarding against disease. An intelligent understanding of how to preserve a strong body is to know how to live a better life.

While the mortality rate has maintained its downward trend, in recent years, so that the usual indicators of the effects of adverse economic conditions are not in evidence, and while science has triumphed over many of the most deadly diseases, notably those of germ origin, such as typhoid fever, diphtheria and many others, there are some diseases that have shown an increasing incidence and mortality. I refer to cardiac affections, arterio-renal diseases, cancer, diabetes and mental ills.

Important health lessons have been taught the general public of Philadelphia each year on "Health Day," and two years ago the movement was extended to embrace the entire State of Pennsylvania. Beginning with 1925, the Public Health Day Organization concentrated its attention upon the prevention of some leading affection or morbid condition, specifically. For example, the following subjects were considered in turn, tuberculosis, cardiac disease, cancer, diabetes and other fatal, chronic affections. It is not too much to say that considerable public interest in these various diseases was aroused. Both individual and community health have thus received a decided impetus.

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*Address delivered before the tenth annual meeting of the Pennsylvania Public Health Association.

Aim

It has been the aim and object of those heading the movement to awaken the consciousness of the citizens to the vital importance of good health. They have wished to impress all classes with the fact that a high standard of community health is the best asset that a city can possess. A former chief magistrate of Philadelphia wisely stated, "We are beginning to realize the economic and political importance of all questions relating to health. Indeed, I feel that the time is close at hand when every citizen of Philadelphia and elsewhere will have the right to live a hygienic life in a healthful environment."

One of the special objects of the observance of Public Health Day is to focus attention on the great value of physical fitness and the equally important periodic health examination as a means of detecting incipient morbid conditions; and thus forestalling more serious pathologic developments.

It has been shown that the proper observance of Public Health Day and Child Health Week annually in Philadelphia, has given an impetus to the interest manifested in health work and activities during the intervals. This is best shown by the presentation each year of the health trophy to that junior high school attaining the highest health average, on the basis of physical vigor, correction of physical defects, percentage of pupils attaining normal weight, personal hygiene and care of the buildings by the pupils, particularly as to cleanliness. The competition for this award is carried on during the school year. This trophy, entitled "Radiance," is a bronze low relief depicting Hygeia, goddess of health, expressing health and vigor; it was the work of Dr. R. Tait McKenzie.

There are also health trophies awarded to one of each group of ten elementary schools of the city competing on a similar basis, annually. It is to be recollected that these awards are made to schools rather than to individual pupils. In this way, it is believed that the need for greater attention to health on the part of Philadelphians will be met when the present school population reaches adult life.

The pupils in the elementary and junior high schools, while competing for the trophies, are receiving continuous instruction and practical training in personal hygiene, sanitation, including cleanliness and the fixation of health habits. The presentations are made on the first day of Child Health Week, or May 1st, each year. The exercises of that day constitute a fitting climax to the competitive efforts put forth during the greater portion of the scholastic year.

Heart Disease

In 1929, Public Health Day was celebrated in Philadelphia on May 9th, at which time the subject of the prevention of heart disease was the main topic considered in schools, industrial plants, over the radio and before women's clubs. In the evening a public meeting was held under the auspices of the Philadelphia County Medical Society, when Dr. James B. Herrick, Professor of Medicine at the Rush Medical College, Chicago, addressed a large audience in the County Medical Society Auditorium, thus climaxing the celebration.

Dr. Herrick emphasized that "heart disease is neither entirely unpreventable nor as relentless in its progress as most lay people and many doctors believe." Special effort was made on that day to carry to young persons, warning of the importance of having conditions corrected that might result later in heart disease—focal infections, for instance, from bad teeth or diseased tonsils, neglected rheumatic fever or other infections not adequately dealt with.

Strenuous athletic competition before the age of sixteen, was strongly advised against by the speaker. Under that age the heart has not sufficient reserve vitality to withstand severe physical contests.

The Periodic Examination

In 1930, the Health Day organization directed its program against the common cold; and in 1931, it enlightened the public on the urgent need of periodic health examinations. This procedure, it was pointed out, enables the physician to detect disease before it has caused irremedial damage to the tissues and organs of the body. It is in the age period in which tuberculosis develops most frequently—15 to 25 years—that semiannual medical examinations, including thorough x-ray studies, should be carried out.

In 1932, as stated above, the movement which had been so successfully carried forward in Philadelphia since the year 1916, was extended and became a state-wide observance. Realizing the very important part which individuals must play, if the advantages of public health activities are to be fully and personally realized, the idea of celebrating an annual Public Health Day is considered to be a very excellent one.

It was believed that the celebration of a State Health Day offered an opportunity for organized medicine to show to the people of the state through the component County Medical Societies, its professional interest in community health.

Official Sanction of State Health Day

Before taking this step, however, the Philadelphia Public Health Day Committee solicited the advice of Governor Pinchot, at the suggestion of Dr. Theodore B. Appel, Secretary of Health, by resolution adopted under date of April 13, 1932. The Governor's reply to me was as follows: "I have discussed the matter with Dr. Appel and believe that the project of designating a State Health Day in the fall is an excellent one. At the proper time I will issue a statement endorsing the enterprise and can assure you of the full cooperation of the State Department of Health in making it a success."

It was believed that the best time for the annual Public Health Day would be the autumn of each year, since then it would not conflict with the Child Health Week celebration which occurs in the spring. It also seemed the most appropriate time to consider measures for the prevention of those diseases that are most prevalent during the winter and early spring months.

Again, the prevention of those chronic ills of middle and advanced life, which have been manifesting an increasing incidence and mortality, cannot be appropriately discussed during Child Health Week. Accordingly, the first Pennsylvania State Health Day was held on October 19, 1932, and the second on November 8, 1933.

At a meeting of the Board of Trustees of the State Medical Society, which had been requested by Dr. Appel, it was, upon motion by Dr. Anderson, duly seconded and unanimously adopted, resolved that the Board of Trustees stand committed to the proposal, suggesting an appropriate date about the middle of October. The plans to be arranged by the Public Relations Committee in consultation with the Board of Trustees. The adoption of the motion included the approval of the suggestion that the public meeting, held in connection with the annual session of the State Medical Society, be considered the appropriate occasion for a program preliminary to a State Health Day.

A committee was appointed to confer with the speaker regarding the program: Drs. Edgar S. Buyers, Frank C. Hammond, George H. Cross and Wilmer Krusen, the two latter being members of the Committee on Public Relations. This committee met with me in Philadelphia, and it was decided to turn the arrangements over to the Public Relations Committee to work in conjunction with the Committee on Arrangements of County Medical Societies.

On the occasion of the first Pennsylvania State Health Day, forty-three counties participated in the celebration. It is to be recollected that all of these local, or county programs, were rendered under the auspices of the County Medical Societies. As Dr. W. H. Mayer, chairman of the State Medical Society committee on Public Relations, in commenting on the new movement said: "This type of educational work belongs to us, but with this possession comes our responsibility to direct and do it well. In many states all sorts of organizations other than the medical profession, lead in such activities. Therefore, we must continue and at all times show the public our inalienable right to medical leadership; being ever alert to the requirements of this responsibility, and never permit an opportunity to pass unnoticed, and then each year being fully prepared for the grand annual climax—Pennsylvania Health Day."

Of course, efforts to educate the public in the simple rules of hygienic living must be, as already intimated, continuously carried out during the intervals between the Health Day celebrations, under the auspices of the Committee on Public Relations of our County Medical Societies with the co-operation of the special Committees on Arrangements for Public Health Day from year to year. This method of preparing for the annual event was adopted with encouraging results in 1932 and 1933.

It was the desire of the Committee on Arrangements that the County Medical Societies should be entirely responsible for the program and supervise it, although they were urged to seek the co-operation of health officers and, more particularly, their component woman's auxiliaries in the work of developing the program and Health Day meetings.

It is not too much to state that a decided general interest in this statewide observance was aroused. Again, the County Medical Societies' popular programs proved not only informative but in some instances at least, constructively entertaining as well. The attendance of citizens was, in many instances, large and representative. It is to be recollected that the programs were prepared solely for the public, and with a view to presenting facts calculated to prolong life and add to human happiness.

On the occasion of the second annual State Health Day, celebrated on November 8, 1933, emphasis was put on measures intended to prevent those diseases that are most prevalent during the winter and spring seasons, and also upon those chronic, fatal diseases of middle and advanced life that are taking an increasing toll of human lives annually. The value of periodic health examinations was also stressed.

Speaking of the second annual State Public Health Day, Dr. Appel, in a letter to me, stated that "the observance will be quite generally staged this year, as it was last year."

There is no good reason why the work of the county societies between Health Day celebrations should become dormant or indifferent, but to quote Dr. Mayer again, "we should prize highly the contacts made, cherish them, and mould them into a continual appreciation of medical leadership." Numerous publicity items appeared in public print before, during and after the celebration. Special mention should be made of the public addresses and of the films shown, among the best of which were—"Preventing Diphtheria," "A Garden of Childhood" and "Why be Careless."

As a result of the co-operation of the Department of Health of Pennsylvania and the County Medical Societies, I feel that an interesting and effective state-wide observance was carried out.

The continuance of the project of celebrating a Pennsylvania Health Day has again recently received the approval of the Trustees of the Pennsylvania State Medical Society; also of the Public Relations Committee of the State Medical Society, and will, doubtless, as in the past, receive the co-operation of the officers of our County Medical Societies, the Department of Health at Harrisburg, as well as of all interested in promoting the greatest attribute of prosperity in the state and nation, namely, a high standard of physical fitness.

The Health Gnome Says—

Food is now a topic
For intelligent (?) discussion;
At "bridges," clubs and meetings,
One gets the food percussion.

"Do not eat this or that,
It lacks the proper mix;
If this vital (?) rule is flouted
You'll be in an awful fix."

Thus to eat by law and order
Has become indeed the style;
Just to eat for joy and living—
Such things create a smile.

The fact remains, however,
That Dame Nature's in the saddle;
And she really cares but little
For caloric, vitaminic prattle.

So, if well, forget the balances,
Calories, vitamines and such;
Eat for the joy of eating—
Not too little, nor too much.

J. C. F.

EATING IN ALL LANGUAGES*

Charles H. LaWall, Sc. D.

Dean, Philadelphia College of Pharmacy and Science

MY work has brought me largely into contact with food stuffs of various kinds. I have derived much pleasure and not a little profit by familiarizing myself with the places in Philadelphia where unusual foods may be obtained. One's food preferences are either an advantage or a handicap, especially when one is away from home. If one's preferences are unusual the chances are that such an individual would be either a victim of malnutrition or of one of the deficiency diseases. My creed about eating, as promulgated many years ago is that "one who can eat in all languages can find nutritional salvation." I can assure you that you need not travel in foreign lands to eat strange foods, if you live in a cosmopolitan city like Philadelphia.

If you will go with me in spirit, we will make a little tour of the places in Philadelphia where unusual foods are offered for sale. Within a few squares of City Hall is a Greek settlement. In any one of the grocery stores which cater to this group one may find dried cuttlefish for sale. This is very repulsive in appearance, but smells like dried codfish. If you engage the proprietor of the store in conversation about the dish he will describe in detail his favorite method of preparing it. You can also purchase the black, dried, ripe olives with a smoky flavor, and the large chick peas, either raw or roasted, cheese from either goat's milk or mare's milk, and asphodel bulbs in glass jars, these latter having been highly esteemed by Galen, who mentions them in his renowned work on foods.

Opposite the grocery store, one may find an oriental sweet shop in which unusual forms of pastry and sweets are found in the windows and showcases. One of the favorite forms looks like a shredded-wheat basis, and the pastry part is made much in the same way as shredded wheat is prepared. The material is then curled into forms like little birds' nests, which are filled with honey and nuts. Here you may purchase freshly made marzipan and also the delectable "loukouma" or Turkish delight, while an array of bottles on the shelves announces that the proprietor also serves grenadine and sherbet syrup for making the sweetened drinks in which the orientals delight.

If we go four blocks southeast of this section in the vicinity of Ninth and Carpenter streets we find ourselves in a community which caters to the trade of Italians, Mexicans, Spaniards, Jews, and Greeks. Here in the butcher shops, one sees "chitlins" offered for sale, also goat meat not masquerading as lamb. Among the fish foods we find skate, squid, and whelk, and eels ranging in size from a silvery form but a few inches long to giants of 8 or 10 pounds in weight. This is the section where certain kinds of fish are kept alive in tanks, and the purchaser indicates the one which he wishes to be withdrawn to be killed and cleaned on the spot, thus ensuring its freshness. Here one may buy snails of several varieties, and in the grocery stores there is the largest variety of alimentary pastes and cheeses that one can find in any similar establishments in Philadelphia.

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*Address delivered at tenth annual session Pennsylvania Public Health Association.

Many unusual varieties of salad greens are found offered for sale here in the early spring, being collected in the open fields by the vendors themselves. In the fall a large and unusual assortment of mushrooms is available sold from pushcarts by those who have brought them in fresh from the country. In their season, one may find in this section some very unusual fruits and vegetables, among which may be mentioned fresh green olives, cactus fruits and loquats.

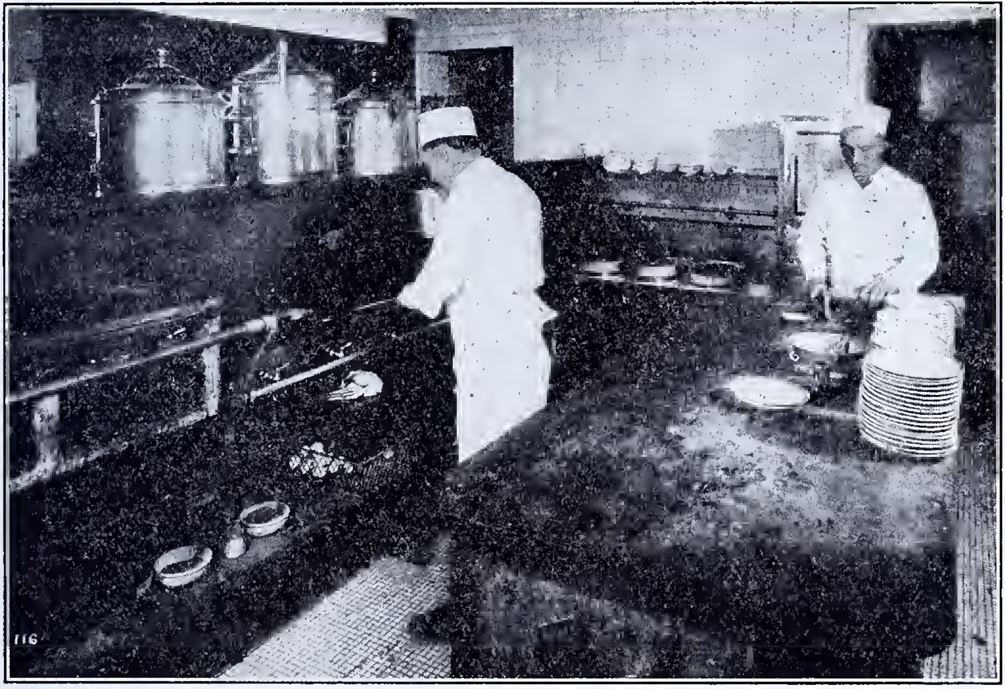
Now, if we turn our footsteps northward a few blocks, we enter Chinatown, and here we find probably the greatest variety of unusual foods to be found in any specific section. Here we may purchase the edible birds' nests in the prepared form, dried sharks' fins, also the peculiar marine animal called the "sea cucumber." All these are used more for their thickening properties than for any nutritive value which they possess. In this section we find a number of soy bean products, including bean curds, bean cheese, and bean sprouts; also the taro or dasheen, which takes the place of the potato; and the udo or Chinese cabbage. In their season we may purchase fresh sugar cane, mangoes, and an unusual form of melon which is sold by the slice. Perennially one may purchase sunflower seeds which the Chinese and Russians eat like we do peanuts by cracking and eating the kernels.

The Hot Dog Stand—Strictly American

Then there are many unusual foods scattered around in the regular city markets, if one knows where and when to find them. The chayoet is often seen in the Fall. This is the squash-like vegetable which was introduced by the U. S. Department of Agriculture about the same time that it tried to make the public dasheen-conscious, with but indifferent success. In the Reading Terminal market there are one or two stalls where one may purchase fennocchio, the fennel flavored bulbous stems of an umbelliferous plant which makes a delightful addition to salads. Among the unusual fruits which I have seen during the past winter are the passion fruit, the sapodillo, and the diminutive finger banana.

If instead of eating the unprepared foods, one wishes to dine in a foreign language, we have a choice of Russian, Greek, Roumanian, Spanish, Chinese, German, and French restaurants. We may find such international favorites as spaghetti, curry, chili con carne, pate de foie gras, caviar, tortillas, chop suey, scharzbrod, hassenpfeffer, goulash, gefillte fish, schnitz and knoepf, and fried rice.

It is an interesting and I believe incontrovertible fact that those who have what might be called catholic appetites and eat a large variety of foods suffer less from nutritional and alimentary disturbances than those who are "finicky" about foods. It is difficult to introduce new foods to the public in general. We usually inherit our food habits as we do our political preferences and our religions. Three-quarters of a century ago few persons would eat tomatoes, as they were believed to be poisonous; half a century ago, the grape fruit was practically unknown; a quarter of a century ago the honey dew variety of melon was unheard of. Thus it is certain that our food habits are changing, and that in a country like America where the average person's food is the highest in quality and the greatest in variety of that of any country in the world, they are changing for the better.



Cleanliness in All Restaurants—Russian, Greek, French, German, and American is a State Requirement

GOING TO THE PUBLIC WITH DENTAL HEALTH EDUCATION*

By J. Clarence Funk, Sc. D.

Chief, Public Health Education Section

DENTAL health education in the past has depended largely on those outside the professions. Doctors of dental surgery, like doctors of medicine, have thus far been bound down by ethics; consequently the trumpets have been left to the quack and the inspired copy-writer. The building of a practice has depended on professional performance, word of mouth eulogies, and personal friendships. The printed page has been outside the pale.

Preventive Dentistry is the Next Step Forward—Educating the Public is Essential to Its Success

And with all this, no particular fault can be found. Professional integrity, next to scientific progress, is the most brilliant light in both the dental and medical groups.

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* Reprinted with permission from Oral Hygiene.

Nevertheless, modesty, for the good of both the public and the dentist, can be carried to an extreme. And that extreme, in the light of personal experience, is reached when the dental profession as a whole is indifferent to entirely legitimate and highly educational approaches to the laity. The public loses by such an attitude; the advertising dentists continue to extract hard-earned dollars for poor work; and the ethical practitioner is limited correspondingly in his possibilities for service as well as income.

It is my belief that this highly inarticulate attitude of the profession does not need to continue. It could be changed to at least a conversational tone, if not indeed to a convincing shout—and this, without the slightest risk of criticism or loss of "face."

For instance, consider the so-called health talk. This form of printed and "radioed" dental health expression has already achieved an outstanding success in Pennsylvania.

Prepared by a writer who for years has been syndicating general health talks under his own name and under the names of State Public Health officials, the popularity of the talks was already assured when the feature was inaugurated two and one-half years ago. This point is mentioned, merely to emphasize the fact that the development of such a series of releases cannot safely be trusted to the amateur, no matter how good a dentist he may be. Talent, training, and experience of a highly specialized character are required. If these requisites and a dental degree can be found in the same person, so much the better. If not, the degree can readily be found by issuing the material under the name of the chief of the dental division of the State Health Department; or, lacking such a person, syndicating it as a straight dental statement, which is now being done in Pennsylvania.

This introduces the subject of sponsorship. Group sponsorship is not sufficient; hence, releases of the American Dental Association or state associations, assuming that they possess reader-interest, are not likely to find general favor with newspaper editors. In such a situation, the source puts the newspaper man instinctively on his guard. He suspects propaganda, however wrong he may be in his suspicion. This reaction is altogether eliminated when the release is issued by a State Department of Health. The professional facts and the motive are thus unquestioned. Editorial resistance is noticeably absent.

Information is given in an attempt to capture and sustain lay interest. The injunction to become professionally affectionate with one's dentist has by no means been overlooked; needless to remark, this admonition does not appear regularly, though it is carried often enough to be highly persuasive.

Tabloid Education

This is education in a tabloid form, giving the reader dental facts of which he is frequently ignorant, and at the same time inviting him in a friendly, though uncommercial way, to patronize the dentist regularly—a suggestion that should result in good for both the public and the profession.

To revert to the Pennsylvania experience, the talk is released in mimeographed form to 675 sources inside and outside its borders, appears in 282 weekly and daily Pennsylvania papers with a circulation of 3,000,000, and is extensively copied in at least one other state. These facts alone make it a rather impressive piece of work, the strength of which lies in its regular weekly appearance, in its style, and in its sponsorship; moreover, the radio in many places has gladly adopted it.

To call this feature advertising is to misname it. It professes to be only what it is; namely, dental health education. If this subject involves repeated suggestions to consult the dentist twice yearly and oftener, if necessary; if the value of good dental service is extolled; and if by this information the business of the dentist is definitely, though incidentally, increased, then no one can logically object. This counsel is merely of the warp and woof of sound instruction and education.

It is believed that similar material could be prepared profitably and issued by every health department in the land. The public certainly needs the instruction and the facts that could be thus presented.

The respective state dental societies in nearly every area are in a position to put such a plan into effect through the dentist on the health department staff, or, lacking such a representative, through the head of the department itself. Why should it not be done?

Reaching the Young People with Dental Hygiene Facts is Fundamental

Reaching the Public

Direct contact with the public is also most convincing. The medical profession, realizing that the platform should not be occupied exclusively by the pseudo-scientists and the "sell-out" fraternity, is now showing definite life in this field. A recent manifestation is in the form of State Health Day.

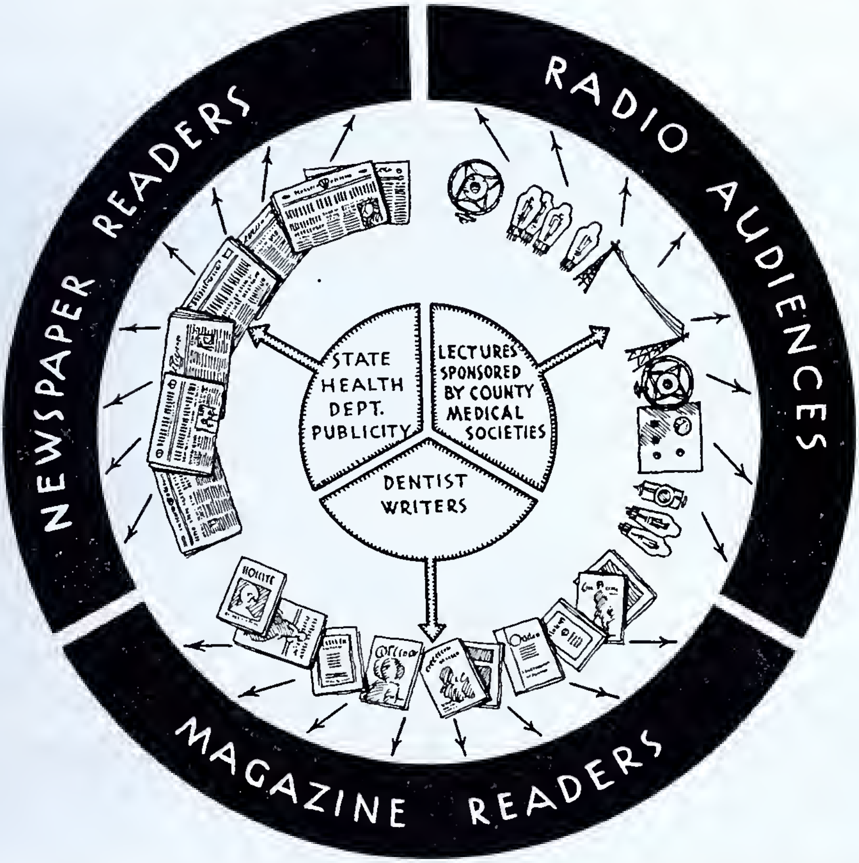
In Pennsylvania, during the second week in October, the majority of the sixty-five county medical societies went to the public to emphasize the value of the medical and hospital services in the respective localities and to stress the value of the annual physical examination, preventive medicine generally, and individual cooperation.

Incidentally, the salesmanship was of a high order. Distinguished professors of medicine, public health officers, and professional health educators addressed thousands of the laity at dinner and evening meetings, which in many instances had the advantage of being broadcast by radio.

In numerous localities, in addition to the heralded mass meeting, service clubs, women's organizations, high school, and other groups were reached.

Manifestly, there is a sufficient supply of well-developed and latent oratory in most county dental associations (not to mention dental colleges) to meet the potential public speaking market. It is a market well worth cultivating for the good of the public as well as the dentists. It is not being done.

And finally, the dental profession can produce authors to write articles in popular form for the readers of lay magazines. In fact, the large number of health feature stories now being accepted by the leading monthly and weekly publications should make it comparatively easy for either the writing dentist or the professional writer to capture such pages, provided the material is written up to editorial standards and down to popular tastes.


NEWSPAPER READERS
RADIO AUDIENCES
MAGAZINE READERS
STATE HEALTH DEPT. PUBLICITY
LECTURES SPONSORED BY COUNTY MEDICAL SOCIETIES
DENTIST WRITERS

It is believed that all these fields in dental publicity have been largely overlooked. Why permit dental health education to be merely a curtain raiser on a popular radio program? Is it fair to the public? Is it fair to the dentists? What do you think?

WHY FUSS ABOUT FOOD?

Andrew J. Bohl

Treasurer, Pennsylvania Public Health Association

BACK in the dear dead days beyond recall, so fortunately beyond recall, food habits weren't thought of, particularly. The big job was to get something to eat. Those were the happy halcyon days when it was fashionable to eat what was put before you; and like it. You did, or went hungry.

It is within just the last decade or so that people began to become food conscious, began to cast up their food accounts with the idea of finding out whether their food actually was food. For all they knew about the values of varied types of provender, they might well have been eating husks or grass, as Absalom and Nebuchadnezzar are reputed to have done.

The People Living Here Do Not Fuss About Calories—Their Worry is to Get Enough to Eat

Suppose we go back a century or two and see how they used to try to nourish the unfortunate infant who, for some reason or other, had to have a substitute for his natural food, the food he should have maternally obtained. In the year 1813 a medical writer mentions a panada used for this purpose, or as an infant's first solid food. This panada was made of bread, flour and cereals cooked in broth, wine or beer, with the addition of butter, eggs, sugar, honey and cows' or goats' milk. This was before the days of bacteria, of course, when dilutions were made with raw river water and a cow's horn was used as a nursing bottle!

And just to show you how successful these trials at nourishing the immature infant were: In a certain French city, in the late 1700's but three of one hundred and thirty-two hand-fed infants survived. In the city of Dublin, in the twenty years following 1775, the foundling asylums took in ten thousand infants, of whom less than one percent lived. In London, about this time, 2880 babies were taken care of, and 2690 of them died.

There wasn't anything wrong with the food supplied to these children. It probably was good food, pure and wholesome, (outside the bacteria) but it was entirely unsuitable for infants. And so they died. Let that bring us up to now.

When this food consciousness movement began, people became obsessed with the idea that their food habits were all wrong, and then immediately proceeded to change them. You know how it is, people in the mass will try anything, and most particularly they like to meddle with their bodies, like to try foods and medicines and mechanical or electrical apparatuses, just to see what will happen. So bran became the order of the day and diets reigned supreme. It was a grand and glorious occasion.

If the control of food habits could have rested in the hands of the reputable medical profession, the chemists and scientists who really knew something about the subject, all might have been well. But that, of course, didn't happen, couldn't happen, and every chance "scientist" who felt so inclined promptly published his views on food, with voluminous diets and plenty of "don'ts." Many people took these diet lists as authentic, ordered their daily provender from them, and suffered in consequence. Some of them, as you may recall, died—starved to death, perhaps, or died by augmenting the affection or affliction that they were trying to cure.

These modern food fakers and reducing experts have done a great deal of harm to the public through their misleading statements and advertising. Just think of what you've read about white bread for instance, and the harm it is supposed to bring to the human race. White bread contains no bran, naturally, for that substance has all been sifted out of it. The food fakers have seized upon this one fact, and have made it the basis of an attack upon this well rounded food. But actually, isn't bread all the better without bran?

Bran is simply the hard outer shell of the wheat grain, no more, no less and while it isn't exactly comparable to peanut shells or oyster shells, yet it has no more nourishment to offer, for it seems to be a fact that it is altogether indigestible in the human alimentary canal. Cows can digest it, horses too, but people cannot, so why insist that it must be eaten by all and sundry?

Putting the matter very simply, while the human alimentary canal needs roughage, it doesn't have to be bran. That is simple, isn't it? So you can get the roughage you need, the bulky food you need, in your green vegetables; for they contain cellulose. If you should thoroughly cook your vegetables and meats, and then puree them through a fine sieve, you would have in your puree all the substances necessary to nourishment. Theoretically, you could refine and concentrate it to the point where you could get enough nourishment in a few ounces of this puree. It wouldn't work out practically, however, for the bulk necessary to proper intestinal activity cannot be dispensed with. You must have it. But, again, it doesn't have to be bran. And bran sometimes is just a little too rough for the delicate lining of our internal economics. Not long ago I saw a photograph of a ball of bran as big as a fist, surgically removed from some poor unfortunate's intestine.

And what about eating incompatible foods? You know, pickles and ice cream, or milk and fish, which are supposed to be simply terrible. Well, perhaps they are, I'm sure I don't know. But here is something that does have a bearing on our health.

We have, all of us, two kinds of digestive juices, acid and alkaline. Nature has so devised the glands from which these juices come that, in a healthy person, the proportionate parts of each are fairly constant.

Planned Meals to Provide Proper Nourishment is a Good Policy for the Young—Food Obsessions in the Adult are Risky

We eat, all of us, or nearly all of us, two kinds of food, proteins and carbohydrates. We eat other kinds, of course, just as our digestive juices contain other substances than acid and alkali, but these two kinds of food are the mainstays of our diet.

Let us see what happens to these foods.

These carbohydrates, which are digested in the alkaline digestive juices, furnish fuel to our bodies, but have nothing whatever to do with growth or repair. The carbohydrates, and the fats, go through the same process of oxidation, by which they are used, or burned, in our bodies. If you eat too much of these substances, since your body can use only an amount proportionate to the muscular work you do, the balance will be stored as fat. These substances are not digested in the stomach, but in the mouth, partly, and in the intestines.

On the other hand, the proteins you eat, the meats, eggs, and so on partly are digested in the stomach juices, which are acid, with the finishing process going on in the alkaline intestine. The proteins, of course, furnish material for tissue growth and repair. You need, certainly, both kinds of food. Conceivably, you could live on just one of them, for many people do, but you'll find that a well balanced diet will be much superior to the other kind.

Don't fuss. Don't say that you can't eat meat, or bread, or this or that. Unless you are definitely sick of a disease where specific foods are contra-indicated, you need them.

Moreover, we have a lot of other bad habits in nourishing ourselves. First of all, perhaps, is the sin of overeating. This puts a tax on our digestive organs, a supertax, perhaps, and at the same time stores up in our tissues a lot of food we do not need and without which we would be better. We see the evidences of this storage in the accumulations of fat which some of us carry about. Far better to carry a brick in each hand if we want weight, for the brick can be dropped if it gets too heavy. It's really amazing to find out how little food is required to support our bodies.

To Be Interested In Clean Food Stands and Safe Food Handlers is Reasonable. Unsanitary Conditions Should Not Be Tolerated.

Second, perhaps, is the kind of food we eat. One of America's highest authorities on the heart, has published a bright and entertaining volume, entitled "How Is Your Heart?" Here's a quotation from it; "There is probably no sentence in the English language which has done more to produce sickness and perpetuate invalidism than the misguided advice 'You must eat plenty of rich, nourishing food.'" There's something to think about, you who live to eat, or love to eat, as the case may be; you who crave thick gravies, highly seasoned meats and rich sugared desserts, and plenty of them. And then he adds "Surely he was a lineal descendant of Solomon who first observed that The Platter Kills more than The Sword."

So, why fuss about food? Folks weren't put into this world to be gourmands, nor yet gourmets, both of which words have an insinuating sound to me. You can be reasonable, you can eat simply of plain food, and not too much of it, and be happier and healthier.

The more you eat, over and above your actual need, the greater load you place on your several organs of digestion and elimination. Your kidneys must work harder, after what is popularly known as a full meal, and that requires an increased blood supply, which means more work for the heart. Likewise, your stomach must put in overtime, to its detriment and yours.

Go on, be reasonable. Eat wisely and simply. Don't augment your meals with snacks in between times, sweet sodas, ice cream, candy or perhaps a midnight lunch of sandwiches and coffee. Maybe you'll be able to sleep, but that poor old tummy must carry on until whatever you've put into it has been digested. Think of your involuntary organs, your heart, liver, kidneys, stomach and so on, just as you do of your arms and legs. They need rest, all of them.

And don't fall for food fads. The chemistry of your body is very complex, and the elimination of some article of food may deprive it of some element that is necessary for its proper operation. Consult your doctor, if you're not satisfied with your food, and do not fool with diet lists unless he advises you, and remember, that diet that's going the rounds may have agreed with a friend of yours, but "what's one man's meat is another man's poison." Decidedly, it does not pay to fuss about food.

DEPARTMENT NEWS

SCHOOL NURSING SERVICE—The school section recently reported that the health situation in many fourth-class school districts has greatly improved during the last four years. John German, acting head of the section, attributes this fact to the untiring efforts of school nurses supplemented by the professional authority of the school medical inspectors. Through these influences thousands of defects have been followed up and corrected.

Commenting on this subject German said, "It is known that a well body means a healthy mind. Moreover, the correction of defects in early childhood also shows its effect upon the public pocket by eliminating to a great extent the repeating of grades."

While such a statement is axiomatic, it is positively surprising how many parents, judging from their indifference, are not willing to admit it.

School Children Receiving Toxoid Immunization

DIPHTHERIA PROPHYLAXIS—Diphtheria toxoid produces a strong, active immunity with a single dose treatment. This new biological product is now being extensively used by the Department, according to Roy G. Miller, chief of the supply division.

Susceptibility to diphtheria is the indication for its use. In the preschool age, for practical purposes, all children are regarded as susceptible. Diphtheria toxoid should be given preferably between six months and two years of age. In children over eight years or those who have previously had toxoid or toxin-antitoxin injections, susceptibility should be determined by the Schick test. Immunity develops within six weeks after injection.

PENNSYLVANIA STATE AND BOROUGH HEALTH OFFICERS' SCHOOL—Thirty-five state and borough health officers recently took an intensive course in sanitation at the Medical Field Service School at Carlisle. This service, while arranged by the Secretary of Health, was under the direct control of the medical officers at the school, including Major C. G. Souder, Major H. B. Gantt and Captains Brewer, Roberts and Keller.

This course, which is an annual affair, deserves the sincere consideration of all health officers not yet having had its benefits.

The Class of 1934

INFANTILE PARALYSIS TREATMENT—Secretary of Health Appel recently announced that Pennsylvania is making marked progress in the curative and reconstructive treatment of children afflicted with the results of infantile paralysis. The bathing pools at Mont Alto and Cresson which have been equipped for this purpose, together with supplemental massage, have been markedly successful in obtaining satisfactory results. This system is similar to the one employed at Warm Springs, Georgia.

Dr. Appel emphasises that there are no special curative properties in the bathing pools themselves. However, children who have lost most of their muscular strength as a result of the disease can perform mild exercise under water without fatigue. In this way they slowly regain their muscular power. This activity, with the massage, also serves to prevent deformities which might otherwise occur.

Already a number of children who have been admitted to the institutions who at the time could neither walk nor sit up can swim and ambulate while in the warm pool. Moreover, by far the majority of the little patients display a decided improvement in muscular action even outside the pools.

Therefore, the work is no longer in the experimental stage. Undoubtedly it will be a definite boon to hundreds of little children of indigent families who otherwise would be doomed to a life of comparative or complete helplessness.

HEALTH SURVEY—All full-time health officers are now engaged in the annual inspection of second-class townships. This survey is being made under the supervision of the Department's bureau of sanitary engineering. It includes a careful investigation of all types of sanitation, actual nuisances and conditions which may develop into such.

Preliminary reports indicate that because of these inspections and repeated publicity on the subject, the citizens of this Commonwealth are becoming progressively interested in greater outdoor cleanliness. A marked improvement of the general sanitary conditions in small towns and rural sections has been consistently noted in the last ten years.

WATER TESTS—The Department is again examining the individual rural water supplies. This activity is based upon requests received from owners of wells and springs.

Many thousands of supplies have been investigated by Department personnel. A number of sources of water supply were condemned and many others required physical improvements in order to make them safe for human consumption.

This work, non-spectacular though it is, has a vital influence in affecting the typhoid fever rate in rural sections—the locality from which most typhoid fever now comes.

Obtaining the Sample

MARIHUANA HELD AT NEW LOW—After steady activity during the last sixty days the narcotic section is now ending one of its most vigorous campaigns against "dope" peddlers. Activity was concentrated in western Pennsylvania where narcotic enforcement officers blamed at least part of the violence which manifested itself in that section on persons under the influence of the marihuana weed. Officers in making arrests reached not only peddlers, but those who controlled the traffic.

Harold V. Smith, chief of the section, recently said, "Originally peddlers of the weed concentrated on youths of high school age, but latterly industrial workers have become the chief customers. Mexicans and negroes were selling the drug not only to members of their own races, but were making a definite drive to introduce the weed among many other workers.

"The federal and local police gave the Department every possible cooperation in the drive. Constant supervision of this insidious traffic in all sections of the State is now a Department policy."

THIRD STATE HEALTH DAY PROGRAM—Arrangements have been made by the Medical Society of the State of Pennsylvania to conduct the third annual State Health Day program, according to a recent announcement made by Dr. William H. Mayer, Pittsburgh, chairman of the Society's Public Relations Committee.

Based on past experience the Society this year will advise the county medical societies to utilize the so-called "captured" audience for the presentation of popular health subjects. That is to say, service clubs, civic organizations, and parent-teacher groups will be contacted for the purpose of having the local county society's speaker presented at one of their regular meetings. In addition, radio broadcasts and publicity material will be utilized as formerly.

The celebration this year will be held by the respective county medical societies for the most part during the second and third weeks of October.

As usual, the Department is cooperating in this movement which was instigated and inspired by Dr. James M. Anders, of Philadelphia.

SAFETY MEASURE—The erection of fire escapes and the installation of an emergency lighting system to comply with the regulations of the State Department of Labor and Industry were recently completed by the Department at the Mont Alto, Hamburg and Cresson sanatoria, also at the Crippled Children's Hospital at Elizabethtown.

It was indicated that while fire hazards at these institutions previously had been reduced to a minimum, the new structures and lighting system bring these hospitals well within the requirements recently adopted by the safety officials.

A FEATHER FOR DENTAL HYGIENE—The examination of 1931 children in twenty-nine towns in Bedford and Schuylkill counties by the staffs connected with the rural health cars, which were active during the past summer, indicates that 8089 cavities were discovered representing 7.6 cavities per child. On the other hand, the report shows that of these children 781 showed no cavities whatsoever.

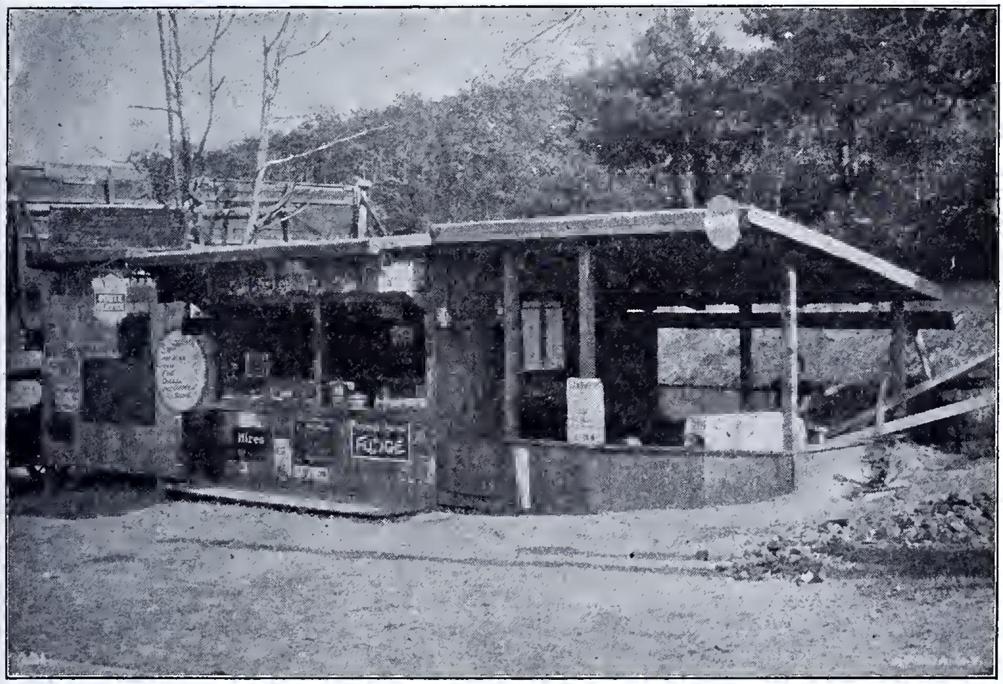
In the judgment of Dr. Mary Riggs Noble, chief of the preschool division, who supervised this rural health work, this record proves that dental hygiene activities and dental health education in the territory covered have been of definite and marked value.

No one can study these figures without being convinced of the parental care back of the one hundred per cent mouths. Much of this undoubtedly has been inspired by the dental hygiene program in general, including dental hygienists' activities and state-wide dental education.

ROADSIDE STANDS—As a result of the intensive work accomplished by the restaurant hygiene section during the summer months many of the inferior roadside eating stands were closed, according to a report recently submitted to the Secretary of Health.

It appears that the travelling public is becoming decidedly choicy in patronizing highway establishments. The tendency seems to emphasize the choice of the permanent and attractive type of structure containing comforts associated with the conventional type of restaurant. The majority of this kind of establishment carefully observes the sanitary rules and regulations, thanks to the Department's intensive investigational and publicity activities in recent years.

This condition eloquently indicates the value of educating the public on the personal cooperation required by it in order that the health laws and scientific measures directly affecting it may reach their highest efficiency.



By Popular Demand Roadside Stands of the Better Type Are Replacing the Mushroom Shack

INTERESTING FIGURES—Reports recently compiled by the Department's bureau of vital statistics indicate that 157,059 live births with a rate of 16.0 per 1000 population was the record for 1933. This reaches the lowest point in the history of birth registration in Pennsylvania. Of the total number, 1203 mothers were attended by other than physicians or midwives due to inaccessibility, racial customs and emergencies. Forty per cent of the births occurred in hospitals, mothers of eleven per cent of the births were foreign born with the leading nationalities represented by Italy, Austria and Poland. Five per cent of the births were among the Negro race, while twenty-eight births were distributed among Indians, Chinese, and Japanese.

INTER-CHAMBER CITY HEALTH CONSERVATION CONTEST—Announcement was recently made that the Chamber of Commerce of the United States will again conduct an Inter-Chamber City Health Conservation Contest. This will represent the sixth annual effort in this line.

Secretary of Health, Appel in a communication recently forwarded to the city health physicians in Pennsylvania, urged the communities to enter this contest as a means of health education among citizens and as an indirect method to increase health administration facilities in communities where such are discovered to be required. This activity is a joint undertaking between the United States Chamber of Commerce and the American Public Health Association.

Vital Statistics Comment

NATALITY IN 1933

Florence Hardy
Assistant Statistician

A FINAL total of 157,059 live births were registered in Pennsylvania in 1933. This total is equivalent to a birth rate of 15.8 per 1,000 population. Both the actual number of births and the rate established a low record for natality. The birth rate in this State has declined steadily since 1921 when there were 229,452 births reported, equal to a rate of 25.9. Judging from the experience of the past six years, Pennsylvania is recording on an average of 10,000 fewer births each year. The birth rate of 1933 was lower than the general death rate in the Commo wealth in 1906 and 1907.

Of the 157,059 births recorded last year, 51 per cent were males, and 49 per cent, females. For every 100 female births in 1933 there were 10 males born. While this ratio may fluctuate from year to year, it has remained constant since 1930 when 106 males to every 100 females we registered.

Colored births in 1933 constituted 5 per cent of the total, which was slightly higher than the proportion of Negroes in the State to the total population.

The illegitimacy rate of 35.3 per 1,000 live births was higher than that of 1932 or 1931, despite the fact that the actual number of illegitimate births was lower in 1933 than in either of the two preceding years. The higher rate is due to the material reduction in total births reported.

An interesting factor in connection with natality as well as maternal and infant mortality is the care of the mother and child at the time of the birth. Last year 96 per cent of all live births were attended by physicians, 3 per cent by midwives, and 1,203 or 1 per cent by persons other than a doctor or midwife. The percentage of hospital births increased from 37.5 in 1932 to 40.5 in 1933.

In Pennsylvania last year there were 1,665 cases of twin births. In 1,476 cases both children were born alive; in 130 instances one child was living and one dead at birth; and 59 pairs of twins were stillbirths. Triplets were born in 9 families in the State in 1933. In 6 of these 9, all three of the children were born alive; in one set, 2 were living and 1 dead; and two cases were registered of stillborn triplets.

Births to foreign-born mothers made up approximately 11 per cent of the total. The country of birth of these women follows:

Nativity of Mother	*Live Births*	*Per Cent of Total*
Total Foreign-born	17,132	100.0
Italy	4,758	27.8
Austria	2,838	16.5
Poland	1,914	11.2
Russia	1,318	7.7
Ireland	1,216	7.1
England, Scotland, Wales	1,124	6.6
Germany	813	4.7
Greece	252	1.5
Scandinavia	127	.7
Other countries	2,776	16.2

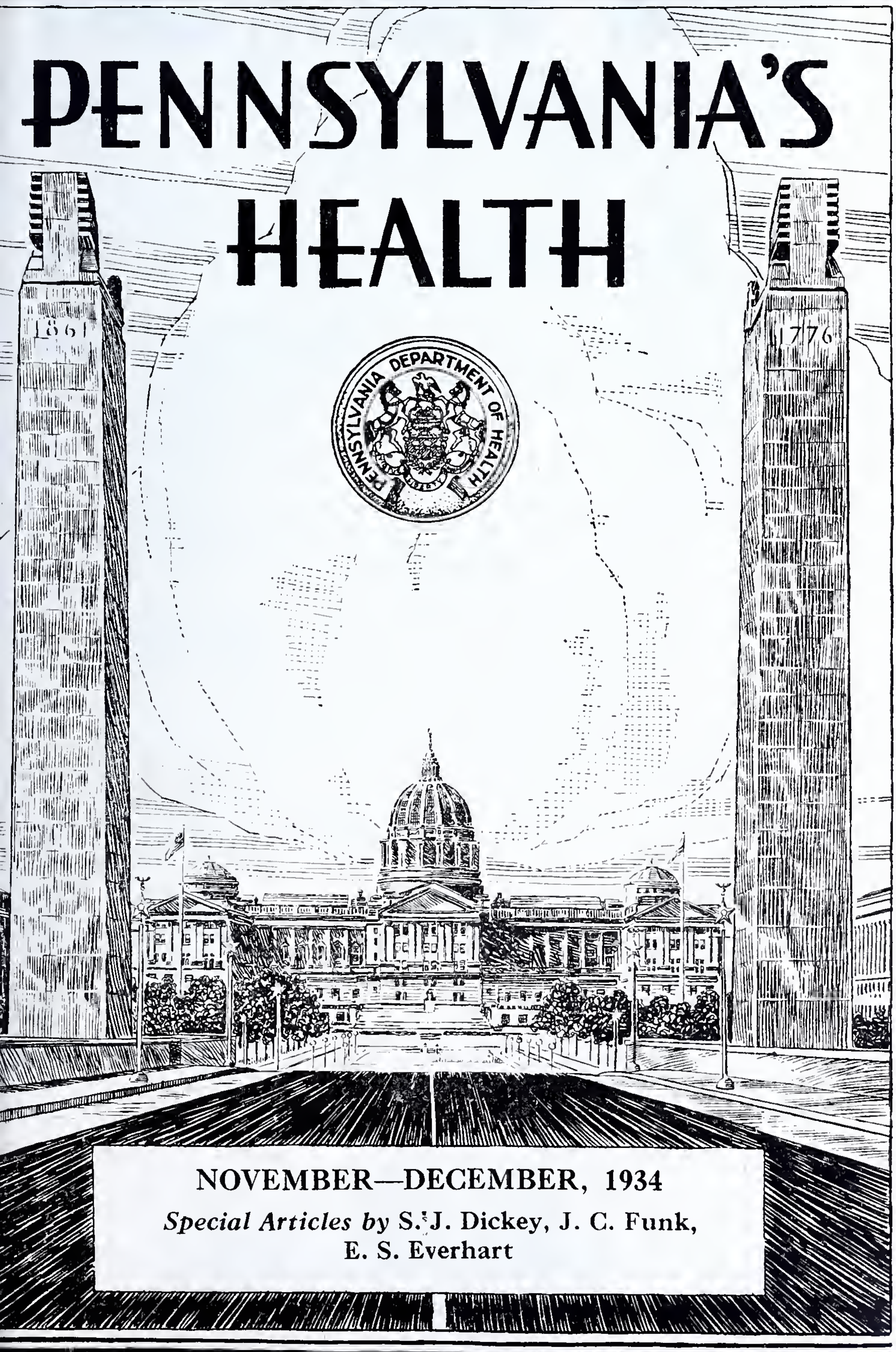
The following table presents the 1933 birth rates in each county in Pennsylvania. In computing these rates, adjustments have not been made for residence of the mother. Since births are assigned to the place where they occur, a high rate may be due to the fact that many births to nonresident mothers have been reported in that county.

LIVE BIRTH RATES IN PENNSYLVANIA COUNTIES: 1933

County	Birth Rates*	County	Birth Rates*
STATE RATE	15.8	Jefferson County	20.5
		Juniata County	19.1
		Lackawanna County	16.6
Adams County	18.9	Lancaster County	18.0
Allegheny County	14.2	Lawrence County	16.4
Armstrong County	18.5	Lebanon County	18.3
Beaver County	14.3	Lehigh County	16.5
Bedford County	19.4	Luzerne County	17.6
Berks County	15.0	Lycoming County	15.7
Blair County	17.5	McKean County	16.5
Bradford County	20.2	Mercer County	15.7
Bucks County	13.2	Mifflin County	20.6
Butler County	17.3	Monroe County	16.0
Cambria County	20.1	Montgomery County	13.4
Cameron County	19.6	Montour County	29.8
Carbon County	14.8	Northampton County	13.8
Centre County	24.4	Northumberland County	15.3
Chester County	16.9	Perry County	17.7
Clarion County	20.8	Philadelphia	14.8
Clearfield County	19.5	Pike County	10.3
Clinton County	19.2	Potter County	16.0
Columbia County	18.1	Schuylkill County	17.3
Crawford County	17.7	Snyder County	17.7
Cumberland County	15.8	Somerset County	20.0
Dauphin County	15.4	Sullivan County	11.5
Delaware County	9.5	Susquehanna County	16.8
Elk County	21.8	Tioga County	19.0
Erie County	15.2	Union County	17.5
Fayette County	17.2	Venango County	16.2
Forest County	21.8	Warren County	13.7
Franklin County	18.5	Washington County	15.2
Fulton County	24.5	Wayne County	15.5
Greene County	17.2	Westmoreland County	15.9
Huntingdon County	21.2	Wyoming County	15.4
Indiana County	18.9	York County	17.0

* Birth rates are per 1,000 population.

PENNSYLVANIA'S HEALTH



NOVEMBER—DECEMBER, 1934

Special Articles by S. J. Dickey, J. C. Funk, E. S. Everhart

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Pennsylvania's Health

Official Bulletin of the Pennsylvania State Department of Health

THEODORE B. APPEL, Secretary of Health
J. CLARENCE FUNK, Sc. D., Editor

Vol. 12 Harrisburg, Pennsylvania, November-December, 1934 No. 6

"Acceptance for mailing at special rate of postage provided for in Section 1108, Act of October 3, 1917, authorided April 6, 1923."

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Published bi-monthly by The Pennsylvania Department of Health, Harrisburg, Pa. This Journal is free to the people of Pennsylvania. A request to the Editor, Department of Health, Harrisburg, Pennsylvania, will bring a copy of this magazine to your home without charge.

Editorial

MEET WINTER WITH A SMILE

TO MANY persons, winter represents the peak season for "bridges," parties, book and magazine reading—and body coddling. Bitterly complaining of excessive temperatures in the not distant past, they step up the heat to eighty degrees or more and complacently bake in a Palm Beach atmosphere.

Winter thus becomes the open season for pale faces, pale nerves and pale living, the first duly disguised by the feminine contingent with drug store make shifts, but there just the same.

It is indeed strange how men and women who a few months ago enthusiastically bronzed themselves to an aboriginal tan by fanatically worshipping the outdoors, now are content to live the synthetic existence represented by the hibernating habits of the multitude.

Thus, leading a cream-puff existence, they toast themselves, live the life of an exaggerated softie—and complain when they are captured by a cold, or laid low by the dangerous pneumococcus germ.

It should be understood that the debilitating effects of hibernation represent a most effective method of reducing natural resistance to disease organisms ever willing to become one's guests and thus effect one's ruin.

But quite aside from the possible illness and premature mortality dangers that are involved in the overheating practice, is the lack-lustre life which inevitably results. That abundant vitality, which in the majority of instances must be reasonably worked for to be achieved, gets little chance to maintain its summer quality through the winter-shy attitude of thousands.

It is too bad that luxury has been carried so far. Deep cushioned chairs, a soft glowing light and a good book, not to mention the other indoor allurements of the frigid season, are attractive of course. And one by no means needs to sacrifice the real enjoyment to be derived from them. It is an excessive fondness to the exclusion of the outdoor possibilities and pleasures at which this preachment is aimed.

For, after all, Old Man Winter is a magnificent fellow. His sharp blasts, his exhilarating air, his snow, ice and even his low temperatures, are laden with the priceless gifts of vim, vigor and vitality—all to be had merely for the taking.

Why not step up to him during December, January, February and March with outstretched hands? Refuse to crawl into the bear's cave. Meet the Old Man daily face to face. Walk a mile or so with him. Enjoy his woods, if they are near enough to you. In short, make him your pal. Therein lies one of the secrets of abounding health.

J. C. F.

UNDULANT FEVER

Samuel J. Dickey, M. D.
Epidemiologist

(Editor's Note:—This article, prepared for the general reading public, will be of particular interest to farmers; handlers of food, milk, animals; and workers in slaughter-houses.)

THE attention of physicians and health officers has in recent years been directed to the presence of an apparently new disease. It is known in this country as undulant fever but investigation has now proven that it is but one form of the disease formerly known as Malta Fever. The causative organism belongs to the Brucella group of which there are several varieties. These different clinical forms are now definitely known to be caused by infection with some variety of this group of organism.

A study of the early history of the disease known as Malta Fever, which is caused by infection with Br. Melitensis, and references to its outstanding features makes very interesting reading.

History

Perhaps the first intelligent study of the disease was carried out by Marston, a British medical officer, stationed in Malta. His "Report on Fevers" to the Great Britain Army Medical Department in 1861 gave a full and accurate description of a disease which he called "Mediterranean remittent or gastric remittent fever." The following quotation from his introductory paragraph is very enlightening and significant: "By this is meant a fever characterized by the following symptoms and course; a preliminary stage of sub-acute dyspepsia, nausea, headache, feeling of weakness, lassitude and inaptitude for exertion, mental or physical; chills, muscular pain, and lastly, a fever having a long course, three to five or ten weeks, marked by irregular exacerbations and remissions, great derangement of the assimilative organs, tenderness in the epigastric region, and splenic enlargement. It is prone to relapses, has a protracted convalescence and is frequently marked by rheumatism."

These observations correspond almost literally with the symptoms of the disease we know as undulant fever and the accuracy of his observations were promptly recognized. As a result of this study by Marston, and elaborated by the investigation of others sometime during the period from 1860 to 1870, a better concept of fevers resulted. From among the various conditions comprising the group known as Miasmatic diseases, undulant fever became a distinct clinical entity. Spurred on by the results of these investigators, Surgeon David Bruce, of the British Army Medical Corps, about 1887, demonstrated the causative agent of the infection. As a result of this discovery the organism was called Brucella Melitensis. Ten years later, Wright and Semple first applied the agglutination test to aid in the diagnosis. This, of course, marked an important study of the disease which presented such wide clinical variations.

Because of the prevalence of this condition known as Mediterranean Malta or Undulant Fever among the military and naval forces in the British Mediterranean territories, the Government appointed a commission representing the Army, the Navy and the Civil Government of Malta to make further investigations of the disease. This group of investigators carried on detailed and laborious studies from 1904 to 1907. As a result of their activities the nature of the organism and the character of the disease were determined.

Source of Infection

The source of the infection, however, was discovered almost by accident. On the island of Malta small laboratory animals were not readily available for experimentation. For this reason goats were used. Before using them it was decided to test their susceptibility to the disease. One of the investigators, much to his surprise, found in the preliminary blood examination that five of the six goats under test already had high agglutination tests for the Brucella Melitensis. As a result, it was soon established that these animals were naturally infected. It was now a very simple matter to show that goats were the common source of the infection and that the disease was acquired by the men in the Army through drinking raw goat's milk. For quite some time after the results of this investigation had been reported, the condition was quite generally considered to be caused exclusively by the milk obtained from goats.

Even the early recognized cases in this country, the first of which was recorded in 1896, were found among men recently returned from the tropics. However, about 1904 or 1905, C. F. Craig detected several cases among American soldiers. He definitely established the diagnosis of a case in a nurse who had never travelled outside of this country. Moreover, at the time she contracted her illness there were no cases of the disease in the wards in which she was nursing. The discovery of this case led Craig to suggest that many cases of what was supposed to be a typical typhoid fever were in reality cases of undulant fever. Despite the report and suggestion, evidently very little work was done for eight or ten years when the next cases were recognized and reported from Texas in 1911. After this investigation the disease again faded from medical consciousness and no established diagnoses were made nor cases reported from 1915 until 1920 when new interest was aroused by an outbreak in Phoenix, Arizona, in 1922, which was studied by Lake and Watkins. These cases, of course, occurred in the southwestern part of the United States where goat raising is quite common and the disease again was associated with goats.

Discovery of Bovine Origin

Through all these years the reports generally show that this disease was never suspected as coming from any other source than from the goat. While Bang, a Danish veterinarian, in 1897, isolated the Bacillus abortus from cattle affected with contagious abortion, no connection between this disease and undulant fever in the human was suspected. It remained for Miss Alice Evans, in 1918, to establish the relationship of the micrococcus melitensis of Malta Fever and the Br. abortus of Bang. Her investigations resulted in establishing the fact that these organisms, although coming from different animals, were practically identical.

The announcement of Miss Evans' discovery caused numerous laboratory investigators to repeat the work and about 1924 Keefer reported a case of Malta Fever which was proved by positive blood culture to be due to the abortus organism.

The establishment of the true relationship of micrococcus melitensis and Bacillus abortus necessitated a reclassification and renaming of these organisms. Down to the present no agreement has been reached but in 1920, K. F. Meyer suggested for the species the generic name Brucella and this has been quite generally adopted.

It is now definitely known that of the group commonly known as Br. abortus we have the bovine variety of the cow and the porcine variety of the pig.

As to the actual amount of undulant fever existing in the United States we have no reliable statistics; the same holds true with regard to its prevalence in Pennsylvania. However, with increasing interest being shown by the medical profession, more information regarding the disease is gradually accumulating.

Pennsylvania and Undulant Fever

The first case discovered and reported in this Commonwealth occurred in 1926, coming from Greene County. It was found as the result of the blood agglutination test which was done in the Department's Philadelphia laboratory. Since that time it has been the Department's policy to do routine agglutination tests for this condition on all blood specimens sent to the laboratory for Widal agglutinations, and if the Widal test is found negative. This policy was established by the Department in 1927. Since that time numerous cases have been reported, the number increasing through the years. Since adopting this procedure, the total number of cases reported for this period now amounts to 186. . . . . .

Since 1927, the disease has been reported from all but 14 counties. It is thus plainly evident that the distribution is pretty general, but for some unexplainable reason the larger number of cases have been occurring in the border counties, particularly the northern and southern groups.

The distribution of the cases according to sex practically corresponds to the observations reported from Iowa where the number of males was 79.5 and females 20.5, while in Pennsylvania 119 or approximately 64 per cent were males and 36 per cent were females.

Regarding the age groups the fact stands out that immature children appear to have a higher degree of immunity than the young and middle adult age groups. The occupations of those suffering from the disease are varied but among those mentioned are housewife, farmer, lawyer, school teacher, salesmen, clerks and physicians. Also included in the group was one veterinarian. Thus it will be seen that the condition occurs quite frequently in families of comfortable circumstances.

Infection Sources—Cows

As already mentioned, the early cases were practically all found among the users of the raw milk of goats. This was quite probably the reason why other sources of infection were overlooked for a time. However, when epidemiological studies became more accurate it soon became evident that cases were occurring in patients who were using no milk or milk that was pasteurized. Thus leading to the discovery of other sources of infection.

For example, a farmer may have the infection in his herd and the milk may be used raw by all members of the family, yet only the man will develop the disease. The only logical conclusion is that this case must arise from contact infection. This assumption is further strengthened by the predominance of the disease in males. Likewise it has been found that numerous cases (7 in our group) occurred in butchers or those handling animal carcasses. Again blood agglutinations taken on a group of veterinarians showed that out of 49 samples 28 of them gave positive agglutinations in dilution of 1–50 to 1–500, in other words, 57 per cent of those examined showed agglutinations in their blood.

Therefore, it is now quite generally conceded that the disease is transmitted in one of two general ways: first, ingestion in which the individual apparently received the disease agent from infected dairy products—raw milk, cream, butter, and in at least one of our cases, from cheese; second, it is acquired manifestly through the handling of livestock; attendance on abortions, or from contamination by vaginal discharges of the animal or the handling of infected carcasses in abattoirs or butcher shops.

Bearing in mind that the organism is widespread among Pennsylvania cattle, according to statements from the Bureau of Animal Industry, one is forced to wonder why undulant fever is not more prevalent. This is hard to explain. Certainly in face of the fact that in only rare occasions do we find more than a single case in the same family, it would seem logical to assume that individual immunity or susceptibility are vital factors. By this same token, dosage does not seem to be of first importance. Strains of unusual virulence should, it would appear, be the cause in some cases although this is hard to prove.

It may perhaps revolve around the long known fact that seed and soil are not the only factors involved; that resistance to disease is a variable factor among people; and that it differs in the same individual at different times. When we find the accessory factors that determine the incidence of this, or any infectious disease, then a satisfactory answer to all these questions can probably be proven.

Clinical History

The average incubation period appears to be from 12 to 21 days but some cases have been recorded in which it is shorter. In some cases it has been found even longer, some times as long as two months but, of course, this is very rare.

The onset is ordinarily insidious although some infections have an acute onset. It is characterized by malaise, chilliness, temperature of varying severity, pain which may be of a general character or localized as headache, backache or abdominal pain sometimes even affecting the joints causing arthritis. Anorexia and usually constipation are the outstanding gastro-intestinal symptoms. Insomnia and nervousness of various degrees of severity are noted. Cough and loss of weight are also frequent and marked symptoms. Enlargement of the spleen may or may not be present, in fact in most of our cases it has been found negative. A very common blood symptom is leukopenia.

Perhaps the symptom common to all cases is a feeling of general weakness, extending through the entire period of the disease and persisting even during convalescence. Sweating, mild or excessive, is also one of the most frequent symptoms to be found, occurring in from 70 to 80 per cent of the cases.

Headache, a common initial symptom and usually confined to the early stage of the disease, is associated with the fever, hence increasing in severity as the temperature rises. It is thus most severe in the afternoon and evening. It is usually bilateral and frontal, rarely occipital.

General mild muscular pain is sometimes present; and in some case arthritis and neuritic pains are present to a greater or less degrees Abdominal pain has occurred in some of our cases. This has been severe enough to have been diagnosed as gall bladder and appendix diseases. Aside from constipation and mild anorexia, gastro-intestinal symptoms are not common except in the severe cases.

The respiratory symptoms consist usually of a dry unproductive cough which is usually not troublesome to the patient but this symptom may be a source of annoyance to the physician as with the temperature, sweats and loss of weight it may be a suggestion of tuberculosis to him.

The objective symptoms, with the exception perhaps of the blood picture, are no more constant than the subjective.

The pulse usually varies directly with the temperature but there is no constant relation between these curves. Some cases show an unduly rapid pulse while others have had a pulse similar to that found in typhoid fever.

The temperature range is variable some cases running from 99° to 101°, in others from 101° to 105°. Typically the course of the disease is characterized by two or more febrile accessions separated by definite intermissions, during which the temperature is essentially normal, and in which relief from other symptoms occurs. The duration of the febrile periods varies considerably, with a tendency for the successive attacks to be shorter. Splenic enlargement, as above mentioned, may or may not be present. The blood pressure both systolic and diastolic are generally lower than normal.

A secondary anemia usually occurs, marked both by a reduction in the hemoglobin and red blood cell. . . . . .

Wrong Diagnoses

Owing to the wide variance of the clinical symptoms of this disease it is not surprising that erroneous diagnoses quite frequently occur; the three most frequent of these being typhoid fever, influenza and tuberculosis. Those of lesser frequency are appendicitis and cholecystitis. Infrequent provisional diagnoses sometimes made are nervous breakdown, sub-acute bacterial endocarditis, cystitis, pyelitis and orchitis. We have had no diagnoses of acute rheumatic fever or tularemia but these could possibly be considered in making a differential diagnosis.

The mention of so many possibilities easily shows that the diagnosis of this condition requires much time and study. This emphasizes the importance of laboratory tests in all suspicious cases. The laboratory procedures which are of value in diagnosis are the agglutination tests, cultural studies and white blood cell and differential counts. Of these three the one of greatest value in differential diagnosis is the agglutination test. It is readily available without cost to the patient or physician, if sent to the Department's laboratory at Philadelphia. It is urged that these facilities be more frequently used in the investigation of undetermined febrile illnesses. It is to be borne in mind that a positive agglutination test is not usually demonstrable before 10 days to 2 weeks after the onset, and this should be borne in mind if the first report should be negative and a second sample sent for confirmation. Blood, urine and stool cultures are all valuable in the study of suspected cases but these are only practical in diagnosis when the patient is within easy reach of a laboratory.

Treatment

Available therapeutic procedures of proven value are rest, liberal diet, adequate fluids and appropriate treatment for the alleviation of prominent symptoms.

The therapeutic procedures which have been reported consist of the use of specific vaccine. . . . . .

Value of Prevention

Since we have seen how unsatisfactory the treatment of this condition is the most logical procedure to pursue, at the present time, is naturally one of prevention. In considering the prevention of Brucella infections in human beings, it would seem that the most effective control measures known at present are those designed to prevent human contact with virulent organisms which lead to the infection of susceptible individuals. The work along this line can probably best be carried out by bearing in mind the chief modes of transmission of the disease, namely, ingestion of raw dairy products and contact with infected animals. Also, to remember that the portal of entry into the human body may be either the mouth or the skin.

As to milk-borne infections the first preventive essential is healthy cows; this information can only be obtained through serological or cultural tests constantly to determine the presence or absence of the infection in the animal. Examination of the milk by ordinary bacteriological methods does not prove the presence of Brucella therein as these organisms grow too slowly to appear visible on culture plates in 48 hours. Therefore, a milk that has an exceedingly low bacterial count may be heavily contaminated with the organisms of undulant fever.

Since the elimination of infected animals by means of the agglutination test is a long and expensive procedure, this means of elimination will naturally be very slow in developing. This being the case, the only other course of prevention through infected milk is pasteurization. Since this procedure not only takes care of undulant fever but of other communicable diseases transmitted by milk, this must be our sheet anchor in prevention of milk-borne undulant fever for at least a number of years.

Advice to Farmers

The measures designed to prevent infection through contact consist of education of those who are handling animals that are infected with the disease; and particularly in such activities as vaccinating and ringing hogs, in handling the newborn pigs and in loading and unloading hogs for market. Farmers will do well to avoid the direct contact with infected bovine tissues incident to manual removal of placenta in aborting cattle. Livestock dealers and veterinarians and packing-house employes compose other groups who are particularly liable to infection. Therefore, it would seem that proper education of those whose activities throw them into contact with animals presents one of the most valuable means of prevention of the disease.

The Health Gnome Says—

Bears, 'tis said, hate Winter;
They crawl into a hole,
And sleep away one-half their life,
Because they dislike cold.

But human beings aren't bears,
Though they often act that way,
By avoiding Winter's chilly blasts,
And giving heat full sway.

They crawl into their hot-house shells,
And toast before the flame;
And thus snub Old Man Winter,
But weaken their own frame.

Yes, Winter wants to be a friend—
He will give you vital health;
If you will but step up to him
And partake of his great wealth.

So, up and out to meet him,
Greet him daily with a smile;
His friendly blasts and stinging cold
Can make your life worth while.

J. C. F.

WHITE-COLLAR JOBS ARE DANGEROUS*

J. Clarence Funk, Sc. D.
Chief, Health Education Section

A FEW days ago a friend from a distant city unexpectedly came into the office. Pale as death, with dark rings under his eyes, lips blue, and trembling all over, he weakly asked for a doctor.

"What have you been doing to yourself?" inquired a hastily summoned physician.

This was his story: Several "bracers" during working hours, forty cigarettes inhaled daily, an excessive use of coffee, food of any kind any time, an average of seven hours' sleep each night, an entire lack of exercise, and all this coupled with the strenuous duties of a successful business executive.

"Well," the doctor tersely concluded after his examination, "you are actually more dead than alive, and unless you want to be altogether dead, these things must stop and stay stopped."

Now here was a man who in twenty years, through sheer initiative and keen judgment, had amassed and kept a large fortune; nevertheless, in spite of his ability, he had given so little consideration to his own welfare that at the age of forty-six he was a physical wreck—a white-collar victim of today's high-powered existence and worries.

And yet as a class there is no person in the world who is more concerned for the health of his family than is the man of the white collar. His children must be properly safeguarded against disease, his wife must always have the best medical attention; and if he is an employer of labor he is likely to know intimately the beneficial results of industrial medicine. But there the matter usually ends.

For some peculiar reason this wise gentleman somehow conceives the stupid idea that Nature's laws do not apply to him, that he can consistently disregard them over a period of years, and on top of it all live to be a hundred!

At a horse show some months ago, the president of the association was the center of attraction. In fact there was much of him to see, much too much. One could not but compare his over-indulged body with those of the magnificent animals he directed. He is now dead. The horses, however, continue to capture blue ribbons. Had that rich gentleman emulated even to some extent the restraints that were forced upon the expensive horse-flesh there is little question that, barring accidents, he would still be among those present, for he was a comparatively young man when he died.

But one does not need to go far afield for illustrations. Cases in varying degrees of foolishness can be found right at home among one's own circle of acquaintances. Which is only another way of saying that the prevailing notion in the mind of the average white-collar man appears to be merely to live rather than the more sensible one of desiring to live healthily and lengthily.

Consider this typical case: A lawyer, aged forty, on his way to the court-house the other morning looked ill and promptly admitted the fact. "Yes, I'm in bad shape," he said. "Very nervous, can't sleep

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*Reprinted with permission from *Physical Culture*.

without the help of a hypnotic, and even then feel shaky in the morning."

Even then! As a matter of fact that fellow should not have known that a hypnotic existed, much less used such an agent to induce sleep without professional sanction. Regarding his cases he locates the authorities, but for the relatively unimportant matter, as he views it, of his own health he takes the advice of a misguided layman and suffers in consequence.

And in this connection there appears to be a very general notion that the official organizations have assumed the main obligations connected with personal health and welfare. To the end that Mr. Average Man, with his water supply protected, his milk guarded, with sewage scientifically disposed of, and epidemics controlled, falsely concludes that, "George" having done it, nothing remains for him but to make money and have a good time.

Consuming Too Much of the "Luxury" Foods Is No Asset to the White-Collar Man

However, such an impression is not only false but actually dangerous. Good health, with all the abounding vigor, vitality and joy of life which it implies, doesn't just grow like Topsy, neither is it a perpetual motion affair. And most positively it is not a proposition to be delegated. As a matter of fact Nature, while not a hard taskmistress, is a most exacting one. "Play the game according to my rules and live," she says. "Cheat and lose."

And that, expressed concisely, is the long and short of it.

A man of fifty-two who had been an athlete in his youth but had exercised sparingly since that time, under the enthusiasm of a crisp winter's holiday determined to "show up" his boys in a hockey game.

Well, he succeeded, he did "show them up," but he died two days later. Which story has a moral.

If there is one thing that the body of the indoor man equally demands with food, water, rest and shelter, it is daily exercise. Nevertheless, clear as this fact is, it is criminally disregarded by hundreds of thousands of men because they have "no time to bother." Consequently their schedule does not include a consideration of their muscles. Indeed, so far as many are concerned, such things scarcely exist. Machinery and money translated into service have actually taken much of the muscle out of life, but these factors have not taken the muscles out of the body.

And so it just naturally came to pass that the erstwhile college star, who for more than two decades had deliberately refused to take his musculature seriously, including his heart, attempted a grandstand comeback that ended in a funeral.

The other day a well-known contractor went to a doctor's office for "a tonic to build up my run-down condition." He didn't get it. Instead, he was told to walk three miles each day, to take setting-up exercises each morning, to visit a gymnasium twice weekly and thus "discover for the first time in twenty-five years that you have a body which for that length of time has been silently begging you to put it to work."

Really, any one who considers the matter at all is bound to admit that muscles were designed for the purpose of being exercised; moreover that the very foundation of bodily vigor depends upon their regular use. Why not use them, then?

Scarcely more than a month ago, while having breakfast at the home of a friend, I was surprised to see him eat an orange, three soft-boiled eggs, five griddle cakes, a quantity of ham, and then top off the whole thing with two cups of black coffee. Had that man been going into the winter woods to fell trees, such a food intake might have been justified. But what excuse had he to offer when the limit of his exertion involved walking two short blocks to the depot to catch a train into the citv!

Interest having been aroused by his breakfast feat, I made it a point to lunch with him. And again he stowed away enough food to sustain a lumberjack. That this "successful" man is slowly killing himself with food is the simple—all too simple—fact. And he is by no means a particular exception, either.

It is safe to say that more than sixty per cent of office men daily consume twice the amount of food actually required. While no doubt overeating is a pleasant way to die, living is man's chief concern, to which statement he of the white collar should enthusiastically subscribe—but doesn't!

One has often heard of Napoleon's ability to thrive on a surprisingly few hours of sleep. The same story is told of Edison. However, neither of these instances affords the slightest excuse for the general run of business man to assume that he is in their class, for the chances are more than one in a million against him. Nevertheless, sleep starvation, while unrecognized, is an all too common complaint these days. Eight hours' rest in a well ventilated room is the demand that Nature puts upon most of us; life cannot reach and maintain its greatest vitality otherwise.

It is right here that the white-collar man hits a big snag, for it is he who works all day and then plays all night. As a social being, many of his evening hours are likely to be regularly occupied with bridge, the theatre, the movies or that particularly fascinating pastime of getting far distant broadcasting stations in the late hours. But eventual loss of vitality, coupled with a shortened life, is too big a price to pay for diversion. Recreations so used that they habitually deprive one of the necessary hours of sleep do just that very thing.

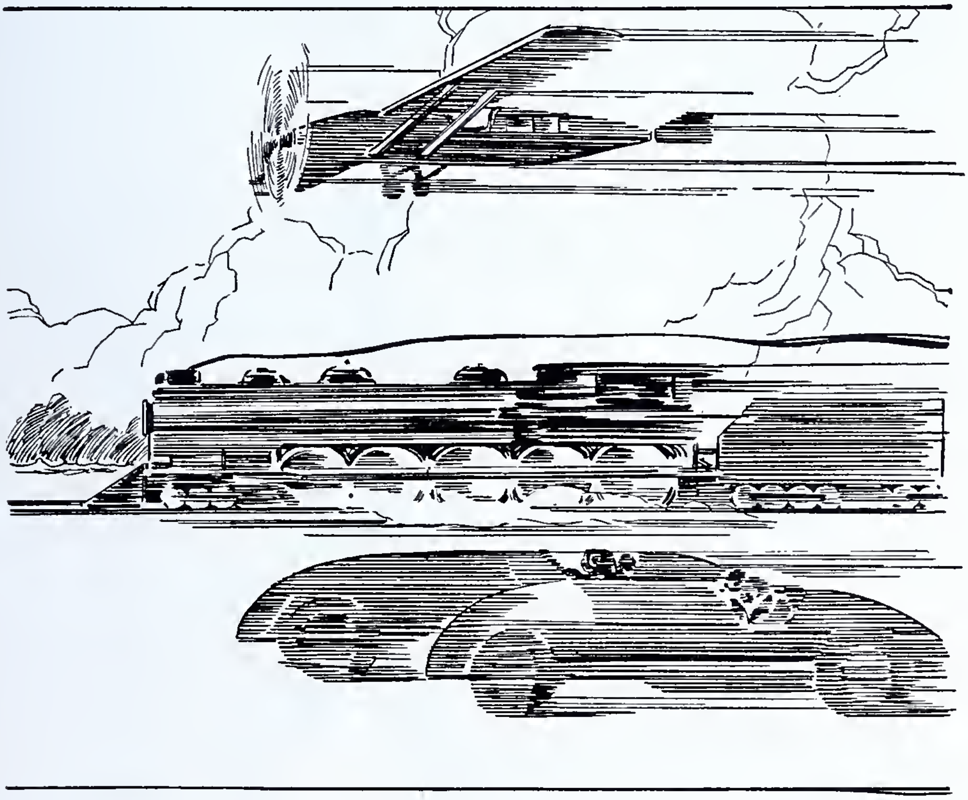
A Free Substance That Can Be Used by Most Persons More Freely

A man who was noticeably losing physical ground recently sought medical advice. After completing his very thorough examination, the physician, in lieu of prescriptions or pills, merely said, "Go home and get some sleep. Because you are a remarkable business success you evidently think you are a superman. Well, you're not! So crawl into bed for eight hours each night with the rest of us common folks."

While the patient was visibly chagrined at this homely but extremely wise advice, he was a fortunate man at that. Completely absorbed in his work as he was, he had not considered it necessary to take time out to go to a doctor until he himself noticed that something was wrong. Matters indeed might have been worse, as was the case with one of his close friends.

He, too, was an extremely busy man. Enjoying capital health and looking every inch the part of a well man, a physician's office was the least of his concern. However, one day something suddenly snapped. Desperately he tried to fight his way back to health, but failed.

"This death need not have occurred," explained one of the attending physicians. "The annual physical examination would have discovered the trouble at a stage when remedial measures could have in all probability been successfully applied. Merely another case of 'too late.' "



Fast Going Is All Right for Transportation—Fast Living All Wrong for Humans

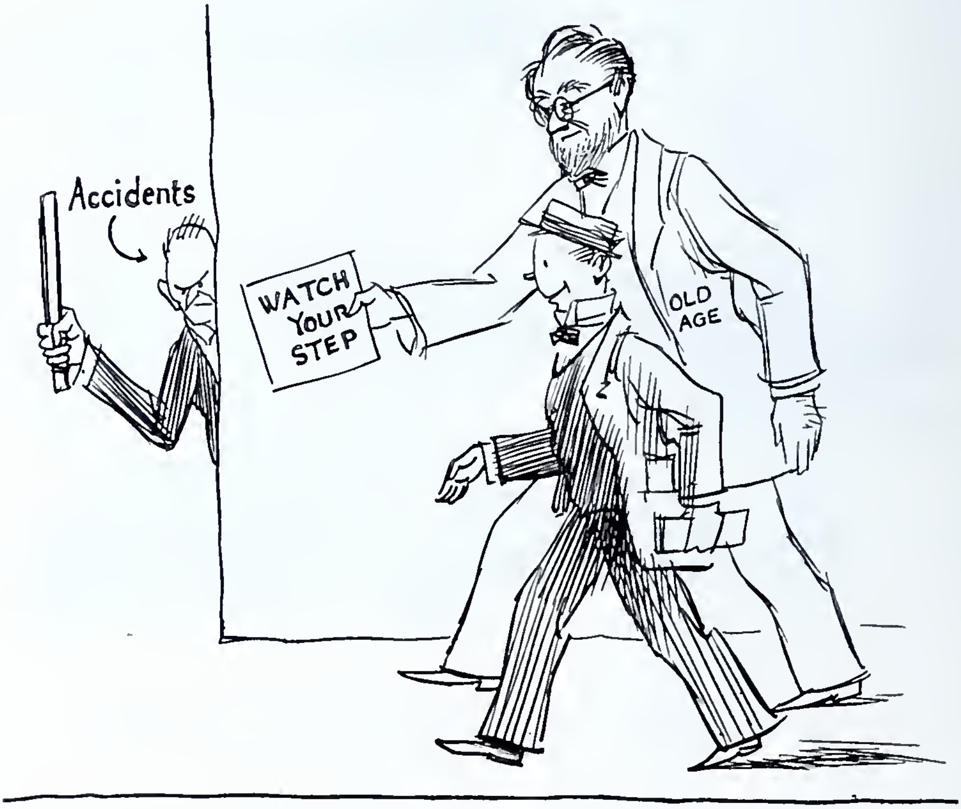
As a matter of fact, the death rates for those of middle age and beyond could be markedly lessened if people would realize the advantage of the yearly examination.

It has been estimated that much less than one-half of one per cent of the business men in this country have respect for the periodic examination. Plainly the vast majority are not at all interested. Rather a shame, too, because types of heart disease, as well as cancer, diabetes and tuberculosis, so often stealthily creep up and establish a commanding and fatal position long before the unsuspecting victim is at all aware of their existence—conditions that readily come to light under the practiced eye of the examiner.

It is certainly discouraging for officials and all others interested in human welfare to spend their lives improving and lengthening life, and then on top of it all be compelled to realize that thousands are dying long before their time simply because of personal neglect and indifference.

Every effort is being made to raise the health standard and prolong life to a happy old age. While the average span of life has been increased nearly fifteen years since 1906, the gains have been made with the children and young people. No progress can be credited to those over fifty years of age—a rather startling fact.

It is quite possible to exercise supervision over infants and young people, but an attempt to apply a similar discipline to adults fails. Wise in their own conceit, concentrating on the day's business and the night's pleasure, they just naturally possess a disinclination to become interested in their own physical well-being unless pain or discomfort forces them to it.



The White-Collar Man Frequently Becomes an Inexcusable Victim of This Thug

It would seem that a supreme ego, not ignorance as one would naturally expect, is the real cause of this attitude. For some odd reason man refuses to admit that he is a machine. He deliberately blinds himself to his anatomical structure. Rather he glories in the fact that he is a man. "A being," he argues, "who builds skyscrapers, who flies, who harnesses natural forces and in an astonishing way bends them to his will—such a being a machine? Bah!"

Yet the fact remains that the body in which his intelligence has its locus is a piece of mechanism, amazingly contrived though it is, which needs attention in precisely the same manner as does any other piece of delicate machinery.

Certainly no one can deny that if the white-collar man would develop and sustain as much interest in his desire to keep his body in good running condition as he displays in this respect toward machinery, more of his type would die later in life than are now dying; and incidentally, while living, would experience an unusual zest and keenness in the process.

The attitude of the mind must be reckoned with in any consideration of the white-collar man's health. Psychologists and psychiatrists in recent years have opened up a most interesting field in this connection. However, it is not necessary to be a deep student in these matters to appreciate the effect that the mind has upon one's physical condition.

Here is an average example. A clerk in one of the local banks apparently for no reason at all was losing weight. He couldn't eat, his color was bad, he was noticeably nervous and was becoming slipshod in his work. His condition became so apparent to the officials that a careful checkup on his book was instituted. Everything was in fine shape. Further investigation on the outside failed to indicate any cause for his plight.

It was quite evident though that the old bugaboo worry had him by the neck and was literally crushing him. Finally, the truth came out. It seems that he had learned on good authority that his institution and another one were to merge—not an unusual circumstance, these days. A friendly enemy had seen fit to suggest that under the new order he might be looking for a job. As a matter of fact the banks did merge, but instead of being fired his salary was raised! A fairly good instance of an all too common attitude.

It should therefore be evident that brains need some real backing from the health standpoint. To become so surcharged with conceit as to imagine that, being a white-collar man, one can be snobbish regarding his bodily welfare, is to turn one's back flatly on Nature and challenge her to do her worst. Consequently, this she frequently does.

Office workers, from the high-priced executive to the file clerk, must realize that the hazards are no longer in the safety controlled factories; they are at the desks of the white-collar man, thanks to his carelessness and his ego. Believe it or not, white-collar jobs are dangerous. Why permit them to remain so?

MASTER SCOURGES

Edgar S. Everhart, M. D.

Chief, Venereal Disease Section

IT IS not discussed in drawing-rooms nor in fact in other places except where persons such as physicians, nurses, social service workers and the like, who have a professional interest in the subject, may congregate. In spite of the ignominy associated with it, syphilis is a disease that is not confined to persons of loose or immoral character. The baby who comes into the world with the germs of syphilis in its innocent body is just as much a liability to society as is the child who has inherited an equally dangerous but wholly respectable disease.

Syphilis respects no one, nor are its effects less devastating in accordance with the manner it is acquired. It may be of interest to those who take the trouble of thinking on matters of this kind to be told that the free clinics that are operated for the treatment of this dangerous disease are not patronized solely by persons who have acquired the disease through their own misconduct. For those who are uninformed on the subject a visit could profitably be paid to one of the clinics conducted by the State Health Department for the treatment of syphilis provided, of course, such a procedure were permissible. Any doctor or nurse connected with an active clinic could tell many stories of heart-broken mothers and disappointed fathers whose offspring have been robbed of their birthright and doomed to suffering or to an early death.

Health Must Be the Birth-Right of Every Pennsylvania Child

For obvious reasons names will be omitted. The following incident is one of many and is so commonplace to those who deal with the subject that to them it is only of passing interest. Incidents of the kind are only "in the day's work."

In one of the large clinics on a particularly busy day when the doctors and nurses were straining every nerve in their efforts to care for the large number of patients in the waiting-room, the attention of the chief physician was called to a baby who had been brought there for examination and care by its mother. There was something akin to pathos in the appearance of the baby and in the countenance of the mother. To the doctor that mite of humanity was not a particularly alluring sight. It resembled more a wizened old man who was almost ready to end a long span of life rather than one who should show all the freshness of a life just begun. All healthy babies are things of beauty. But this one presented a picture of despair to all except one—the mother. She knew it was not like other newly born babies but in her sight it was distressing, not repulsive. Soon the mother and child were in the examining room together with the doctor and nurse.

"How many children have you had?"

"Why, doctor, this is the first one born alive but I have had three which were dead when they were born."

"Have you always been healthy and well?"

"I never knew what sickness was until a short time after I was married. Since then I have not been up to par but yet I have not been what you could call sick. I always thought that was because I had my babies so close together."

"Probably so, but there must be some other reason why your other babies 'have been born dead.' "

"I have thought of that myself, doctor. Why is it that I have not been able to have live babies—babies like my friends? And why is this one not like others?"

"You can have perfectly healthy babies if you will go to the trouble of taking proper treatment yourself as well as for your expected babies. Now, as for this one, miserable as he is, in all likelihood much can be done, but you will have to follow our directions to the letter. This means that you will have to bring the baby to us every week for a long time to come."

"How long will it take?"

"There is no way of computing that. I can say, however, that we cannot only save his life but we can make him so that he will grow into a strong boy provided the disease has not gone beyond a certain point. It looks to me as though you have brought him to us just in time. Any further delay certainly would have been too late. We will give him the best we have and we hope that we can accomplish a lot. As much will depend upon you as upon us. After a while when the outward signs of his trouble have disappeared, you will begin to have doubts as to his need for further treatment. You will see him gaining in weight and strength and in mentality.

"When that stage of our treatment is reached you will begin to have your doubts. You will say, 'Why should those doctors keep poking medicine into my baby and making him cry when he is so strong and well' or, 'Why should I take the baby to that clinic when there is nothing wrong with him?' When you have reached that stage, you will begin to endanger your baby's life. Your baby will then be at a critical point. When that time comes, you will have to make a decision that will mean all the world to him. If you no longer trust our judgment, if you are not willing to 'put yourself out' for the sake of your baby or perhaps if you are willing to follow the advice of well-meaning but ignorant friends, then your baby will not have a chance in the world to become the healthy boy and strong man which Nature intended him to be. You literally have the future of your baby in your own hands. With insufficient treatment he will either succumb at an early age or he may continue to manhood and at that time show one or more of the crippling conditions which will make him a burden to himself and to society. On the other hand, with adequate treatment carried to the point where his body is freed of the death dealing germs which are hiding in the deepest recesses, he has the chance to develop into a boy such as you have no doubt dreamed about and fervently wished for.

"Now, as for yourself. You are in need of proper treatment at this very time. In addition, your husband is in need of an examination to see whether he also requires treatment both for his own good and in the interest of those with whom he comes in contact. Do you know that if you take intensive treatment, in the event that you become pregnant again, you can protect your babies so that they will be as healthy as any others? Of that you can be assured."

To sum it up, the father was duly examined and he is now receiving regular treatments. The mother has been persistent in the baby's and in her own treatment. In the case of the baby, it is too early to predict the outcome. That will depend upon the parents. This can be said for a certainty, the baby has progressed to the point that he gives promise of developing into a healthy child, although time alone must determine that.

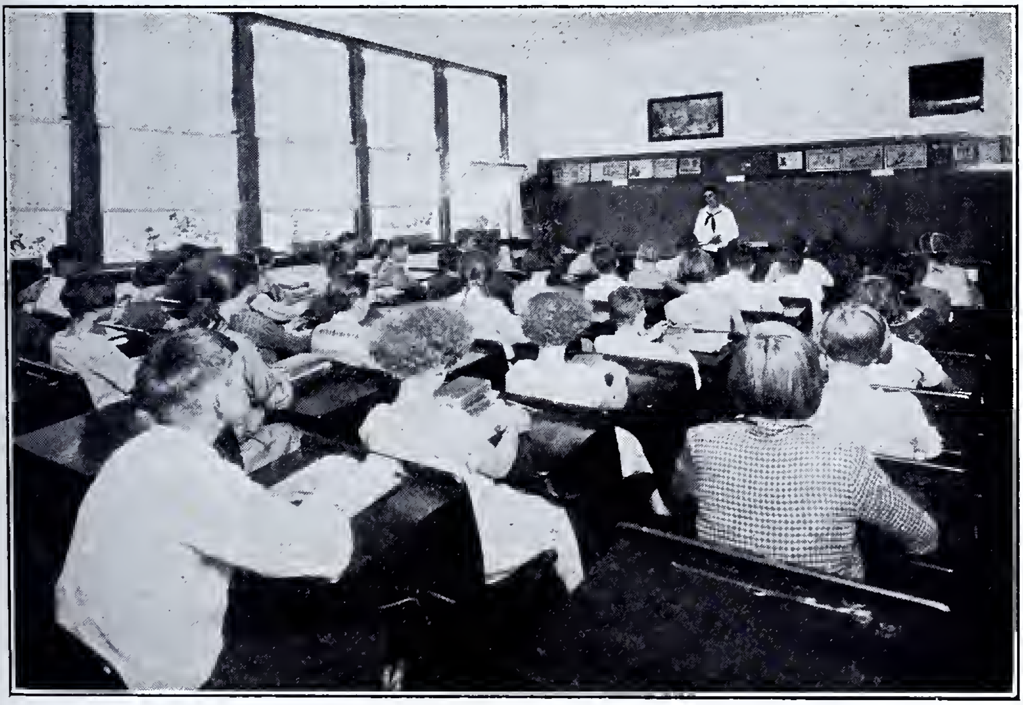
The clinics do not lack the tools with which to fashion healthy bodies from babies such as the one described. Medical science does not lack material to cure people who are sick with this disease. There was a time not many years ago when science was still deficient in the instruments needed to produce a cure. That time has passed. However, human nature being what it is, some informed persons are still willing to take chances with a disease that is not readily apparent to them. Of all the ailments that afflict the human body, there is none that works so stealthily as does syphilis. Its effective treatment requires a large amount of patience on the part of the one that is afflicted. Cures are not brought about within a period of weeks—months and sometimes years are required. The effects of treatment are brilliant and the end results to the patient are worth everything that he can put into it.

The clinics of the Department of Health are intended to prevent the dissemination of disease by those persons who are unable to pay for the services of a doctor. Through the Department's efforts many persons who have no regard for the health of others are placed in quarantine and treated while they are dangerous carriers of disease.

The Department's agents are constantly called upon to advise the proper manner of handling contagious syphilis and gonorrhea that occasionally occur among school children. Whatever may be the reason, it is probably true that these diseases in young people are more often detected nowadays than formerly. Whether or not the incidence is greater, it is impossible to state correctly. The question of handling this matter, nevertheless, is one that distresses school authorities. Through its various agencies and by reason of its experience, the Department is in position to give advice and to use methods that permit solution of these problems with the least publicity and, therefore, harm to the children who are afflicted.

The most distressing manifestation of syphilis is the one which appears in the hereditary form. The ideal treatment of hereditary syphilis, anomalous though this may be, is its prevention.

The clinics conducted by the Department through their various direct and allied workers are constantly on the alert to hunt out and treat syphilis in the indigent pregnant woman in order that she may bear a healthy child. Every social service agency and public official knows that free treatment is available for patients of this kind.



Boys and Girls Should Be Informed of the Venereal Disease Menace

A service which the Department is anxious to give to all physicians includes the furnishing of drugs free of charge for the indigent patient who is unable to report to a clinic, especially for the treatment of the pregnant woman.

Of gonorrhea the most distressing manifestation is infection of the eyes of the new-born child. Nowadays every one should know that a mild solution of silver nitrate or similar solution instilled in the eyes of the child at birth is effectual in preventing this calamity. The Department is anxious to furnish this preparation free of charge to physicians and midwives. The clinics are not equipped for the treatment of eye infections but the doctors and nurses connected with the clinics are constantly giving service by assisting in placing the afflicted babies in institutions where effective treatment may be obtained.

Around the subject of syphilis and gonorrhea there have been so much mystery and ignorance that it behooves health authorities to tell the truth in a sane and scientific manner. It is equally necessary that facilities be provided for the treatment of people unable to pay for private service who otherwise become dangerous carriers of infection.

As to the incidence of these diseases, unfortunately, there are no figures available to compare the present with the past. However, in the case of syphilis in view of the effective weapons that are now available, and with the State and other health agencies caring for the dangerous and ignorant disseminators of this disease, there must come a time when its incidence will be materially reduced.

DEPARTMENT NEWS

LECTURES AT THE CCC CAMPS—The Department is cooperating with educational advisers of the CCC camps in Pennsylvania in presenting lectures on timely health subjects before the respective groups. Lectures thus far have been presented by Harold V. Smith, chief, narcotic drug control section; Dr. E. S. Everhart, chief, venereal disease section; Dr. S. J. Dickey, epidemiologist; J. Clarence Funk, chief, public health education section; Dr. J. Moore Campbell, chief, bureau of health conservation; George W. Moore and R. G. Gorman, engineering bureau; W. K. Moffett, chief, bureau of milk sanitation; C. B. Mark, in charge of camp sanitation, and Dr. James M. Kellogg, of the Department of Agriculture.

These lectures, which include subjects on milk, water, bathing places, camp sanitation, communicable diseases, food control, narcotic work and sanitary problems, were originally presented at the Pine Grove Furnace and Big Pond camps.

The success of these presentations suggested the advisability on the part of the camp advisers of having them repeated at numerous other camps throughout Pennsylvania. This latter activity has been conducted steadily throughout the fall and winter months. Hundreds of young men in this manner have been made intimately acquainted not only with the details of public health measures, but have also received a fine background in matters pertaining to personal health and personal cooperation in public health problems; these latter subjects being supplemental to the instructions given at the units by the camp medical officers.

These lectures were instigated by Arthur Hatch, educational adviser of the CCC camps in eastern Pennsylvania.

VENEREAL DISEASE CLINIC ATTENDANCE—During the last thirty days 285 venereal disease clinics were held by the Department with a total patient attendance of 7,882, according to a report recently submitted to the Secretary of Health by Dr. E. S. Everhart, chief of the venereal disease section. Follow-up home visits associated with the control program aggregated 537.

This work, which is limited to persons unable to pay a minimum fee for treatment by a private physician, has notably reduced the number of persons who, if untreated, would continue the vicious cycle of deliberately or carelessly infecting others.

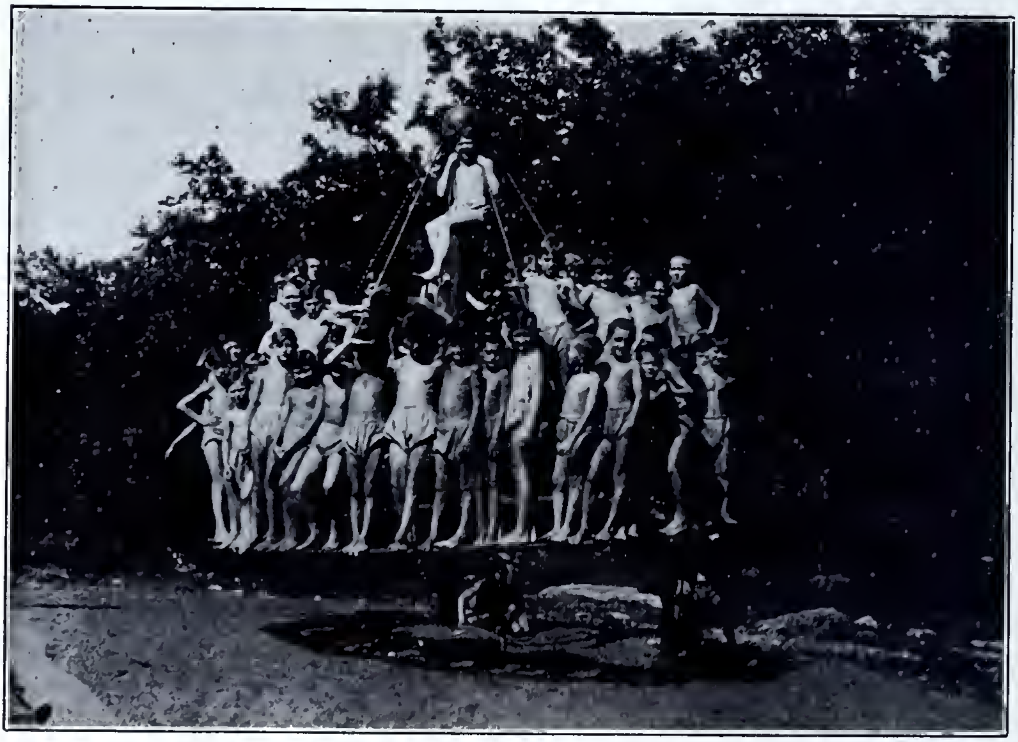
It can therefore truly be said that the preventive features of this essential public health control activity saves not only incalculable sums in money which would be expended for treatment, hospitalization and institutionalization, but has been the direct cause of detouring an unlimited and inexpressible amount of human suffering.

CRIPPLED CHILDREN'S HOSPITAL—Two hundred patients are now being treated at the Crippled Children's Hospital, at Elizabethtown. The increase in service was made possible a few months ago by the opening of additional units, according to a recent report received from Dr. Francis S. Chambers, chief surgeon.

Those persons among the citizenry who for any reason need to have their confidence restored in the efficacy of medical and surgical procedures should by all means visit this wonderful institution. Literally, surgical miracles are being performed there every day resulting eventually in the sending back into the world of young children whose crooked or warped bodies have been straightened to the point where future usefulness of these little citizens is definitely assured.

Unquestionably the work at this institution is hearteningly inspiring and spectacularly constructive. Orthopedic surgery can find no finer illustration of its marvelous possibilities.

TUBERCULOSIS CLINICS—Dr. John B. Critchfield, chief of the tuberculosis clinics, recently reported that during the last four weeks 4,521 patients sought advice at the 411 tuberculosis clinics held during that period in various sections of Pennsylvania. One hundred and seventy-one patients were admitted in the last thirty days to the sanatoria at Mont Alto, Cresson and Hamburg.



These Children, Predisposed to Tuberculosis. Are Becoming Strong and Well at the Mont Alto Sanatorium

It was explained that there are waiting lists at all the sanatoria. The Department, however, is making every effort to admit those cases which evidence the greatest possibility of cure, as well as those who, because of contacts, are definite menaces in the home.

"The fact that so many persons visit the clinics is undoubtedly due, to a large extent, to the splendid educational activities which have been carried on in the last twenty years through the auspices of the State Tuberculosis Society, State Department of Health and other local agencies.

"While tuberculosis in Pennsylvania, which in 1906 was the number one killer, is now seventh on the list of life destroyers, the significant fact remains," explained Dr. Critchfield, "that between the age group of seventeen and twenty-five more people die of this disease than of any other. Complacency on the present record, therefore, is not justified.

"Persons, young or old, who have a persistent cough or night sweats, an habitual feeling of lassitude or fever which recurs daily, usually in the middle of the afternoon or later, should check up through their private physician, or, if unable to pay for medical services, seek the nearest tuberculosis clinic for advice.

"While it does not necessarily follow that any or all of these symptoms mean the presence of tuberculosis germs, they are nevertheless sufficiently indicative to warrant prompt action in seeking professional counsel," concluded Dr. Critchfield.

DRIVE ON NARCOTIC FORGERY—The division of narcotic control is now engaged in an intensive drive against the fraudulent prescription racket, according to Harold V. Smith, division chief. The illicit distribution of narcotics by the underworld has been so reduced in Pennsylvania through the cooperative efforts of Federal agents and Departmental investigators, Smith reported, that hundreds of unlisted addicts have recently been forging prescriptions to obtain their supplies.

Because of the desperate type of person frequently involved in such transactions, many pharmacists and physicians have been loath to present evidence on these activities, fearing violence. Investigations now being made have resulted in the arrest and conviction of a number of violators. Activities now being conducted indicate that this racket will be broken up definitely not only in the metropolitan centers, but in the smaller cities as well.

Drug addicts are to be pitied. To be thus afflicted is an unspeakable misfortune. Many have become addicts innocently by taking powders from friends or diabolically-minded traffickers.

Children especially should be warned against the many advances attempted by such inhuman agents of the underworld. Fortunately there is not a large number at present working in Pennsylvania, thanks to official vigilance. Nevertheless, the present activity justifies the above warning.

DIPHTHERIA IMMUNIZATION—Five thousand eighty-nine children were immunized against diphtheria under the Department's supervision in the last two weeks. In addition, nearly one thousand were given the Schick test to determine susceptibility to this disease.

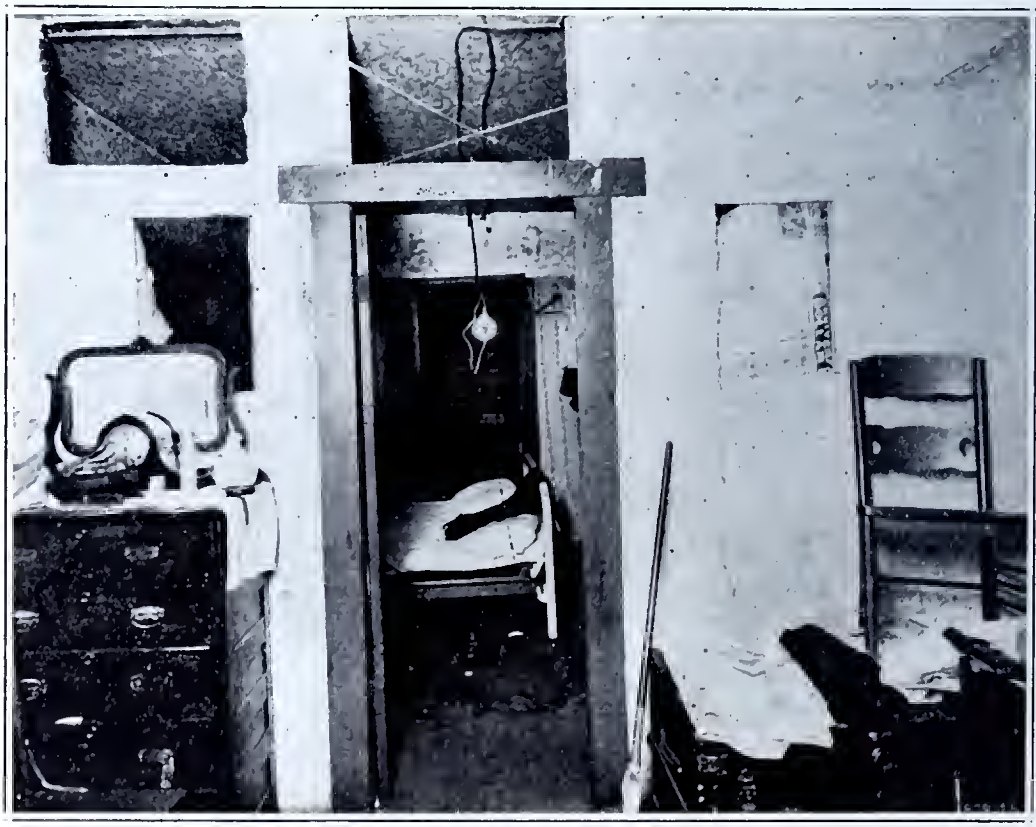
Using this proven preventive measure, State health officials and the practicing physicians have been able to rout this former deadly childhood enemy to the point that it no longer represents a major health problem in Pennsylvania, so far as the disease itself is concerned. The problem still remains, however, in the necessity of having all children in the State immunized against this potent enemy.

Diphtheria will be non-existent in this Commonwealth when all parents will cooperate with public health officials and physicians by having their children immunized against this disease very early in life.

Incidentally, it has only been through the fine and understanding spirit of the many thousands of fathers and mothers that the splendid diphtheria record in Pennsylvania has been made possible.

ENVIRONMENTAL HYGIENE—Many complaints are being received by the Department's division of environmental hygiene indicating lack of repairs in multiple tenement houses, according to Howard F. Bronson, housing engineer. Many of the buildings involved are located in small towns and boroughs. The majority of complaints involve plumbing conditions.

In view of the times, Department inspectors are making every effort to have repairs made to remove the hazard at a minimum cost to the property owner. However, the Department's position is that the health of the citizen is its paramount concern and that conditions menacing health cannot continue.



One of Thousands of Human Habitations Crying for Environmental Hygiene

AID JOBLESS—During the last month representatives of the Department's nursing bureau secured employment for 115 persons. The number of cases for whom relief was secured by nurses totaled 1,067. These activities were supplemental to the medical attention given at the various State clinics by this fine body of untiring and highly specialized group of women.

BIRTH RECORDS—Personnel of the division of inspection have been engaged in the last thirty days in an intensive drive to bring birth records up to date.

"While the vast majority of practicing physicians comply with the law, there are always a minority who are careless in making these reports," said George A. Strine, division chief, recently.

"The Department's activities over a period of years in this connection have educated many physicians to the need of prompt compliance with birth registration regulations. However, there are always a number of births among the 165,000 occurring annually in Pennsylvania that are not promptly reported. This limits the value of statistical data and service. In most instances warnings are sufficient to remove the negligence involved," concluded Strine.

MANY DEFECTS CORRECTED—According to reports reaching the Department in the last few weeks many thousands of physical defects were corrected in children prior to their entering school in the early autumn and many thousands additional have been attended to during the fall term. These involved the removal of tonsils and adenoids, orthopedic defects, malnutrition, nervous disorders, eye, ear and teeth conditions and skin diseases.

These Children Were Vaccinated Against Smallpox over the Parents' Protest—Personal Opinion Based on Ignorant Fear Must Give Way to Public Health Protection

"The least that can be done for children in school," recently stated Dr. J. Bruce McCreary, Deputy Secretary of Health, "is to see that their physical condition is as healthy as it is possible to be. Many thousands of young children in the past years have been woefully handicapped because of correctible defects which were not discovered.

"The work of the rural health cars operated by the Department during the summer months, together with the medical school inspection in the fourth-class districts, have been responsible for the discovery of innumerable conditions in the school child and children about to enter school for the first time. The intensive activities of the Department, at least so far as the fourth-class school districts are concerned, and the cooperative attitude of boards of health in jurisdictions of larger population have been directly responsible for this enviable achievement."

TETANUS CURE DISTRIBUTION—The distribution of tetanus antitoxin has been resumed by the Department, recently reported Roy G. Miller, chief of the division of supplies. This preventive in the past few weeks has been forwarded to hospitals and distributing stations in sufficient quantities to immunize 3,780 individuals; the total cost involved being $3,400.

"This service is an emergency one," Miller said, "and is extended to all classes of persons in need of preventive treatment. The increased number of automobile accidents which in their nature create wounds into which dirt is likely to be scraped has definitely increased the demands for this product.

"Punctured wounds, cuts or sores into which earth finds its way, as well as injuries from powder burns and firearms generally, usually require the administration of anti-lockjaw treatment and therefore has become more or less routine.

"The general application of this emergency measure has apparently reduced actual cases of lockjaw to a minimum in spite of additional possibilities directly due to automobile accidents."

ASK WATER TESTS—An unusual number of requests for the examination of private water supplies in the rural sections of the Commonwealth were received by the Department during the fall and winter months, according to Henry P. Drake, supervising engineer in charge of this work.

"Field engineers of the Department," said Drake, "are making every effort to meet the demand for this type of service even during the winter season which has been unusually marked for this time of year."

It would, therefore, seem that those living in the rural sections are becoming more generally and thoroughly convinced of the value of having water supplies on their premises examined and approved. Conditions which lead to typhoid fever germs in such supplies are thus exterminated. It is reasonable to hope that this preventive measure will in a few years become general throughout the sections lacking centralized and controlled water supplies. When this happy event occurs rural typhoid should become history.

PALO ALTO CLEAN-UP MONTH—While a number of months have passed since the very active Clean-Up campaign instituted by Palo Alto, the Department wishes to congratulate its Board of Health through the Secretary, F. J. O'Connor, for the very thorough method invoked in conducting its annual Clean-Up campaign.

A printed notice carrying the rules and regulations, together with necessary instructions to householders, was distributed among the citizens. The public cooperation which resulted because of official interest developed a clean-up attitude the advantages of which even at this late date are evident.

Dr. C. W. Many, Medical Director for Bucks County since 1925, died on July 27th, in Doylestown. In 1917, he entered the Medical Service of the United States Army and served actively until the latter part of 1919. Upon being placed on the inactive list he became connected with the Vermont Department of Health as a district health officer. Latterly he was appointed instructor of Dermatology in the Medical College of the University of Vermont. In March, 1923, he accepted the position of county health officer for the State of West Virginia. In July, 1925, he was appointed County Medical Director for the Pennsylvania State Department of Health, which position he held at the time of his death.

Dr. Many is survived by his wife, by two daughters, Mrs. Ralph DeKay and Mrs. Myrtle Ross, and a son, Clinton A. Many.

Dr. Many's passing represents a decided loss to the Department. Able, energetic and conscientious, with an extremely pleasing personality, he was a popular and most successful departmental representative. His professional associates sincerely mourn his loss.

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Vital Statistics Comment

MARRIAGES IN 1933

Florence Hardy
Statistician

THERE were 63,459 marriages performed in Pennsylvania in 1933. This total is equivalent to a rate of 12.8 (persons married per 1,000 population). The number of people who were married in this State last year was greater than the entire population of Reading.

For the first time in four years the marriage rate in 1933 increased over the preceding year. There was a 13.2 per cent increase over 1932 in the number performed, and a 12.3 per cent rise in the rate. The marriages recorded in Pennsylvania have fluctuated between a high of 83,865 in 1920, and a low of 54,302 in 1908. The 1932 total of 56,031 was the second lowest on record in this State. During the past ten years there have been 670,063 marriages solemnized in the Commonwealth, as compared with a total of 724,725 in the decade 1914–1923, inclusive.

The rise in the marriage rate in 1933 is significant from a social viewpoint. It not only represents some improvement in economic conditions, but it likely will have a direct effect on the State's natality. With an increase in marriages, the steady downward trend of the birth rate since 1921 may be interrupted temporarily, at least.

Of the 63,459 brides in Pennsylvania last year, 94 per cent were native-born, while 3,707 or 6 per cent were foreign-born. The country of birth of these foreign-born women were:

	Number	*Percentage*
TOTAL FOREIGN-BORN	3,707	100.0
Italy	528	14.3
Austria	524	14.1
Russia	498	13.4
England, Scotland, Wales	456	12.3
Ireland	375	10.1
Germany	354	9.6
Poland	333	9.0
Other countries	639	17.2

In Pennsylvania last year, 22 girls under 15 years of age became brides. In the age group, 15–19 years, 10,634 brides and 1,654 grooms were recorded. The most popular ages to marry in this State are between 20 and 24 years, inclusive. In 1933, more girls under 20 years of age were married than women between 25 and 29 years. At the other age extreme, the marriages of 11 women and 49 men over 75 years were registered. It is interesting to note that for 3 of these elderly grooms their marriage in 1933 was their first matrimonial venture. In 37 cases, it was the second marriage, in 7 instances the third, and 2 men over 75 years of age became grooms for the fourth time.

There were 23 second marriages for brides under 20 in 1933, and a fourth marriage for a woman in the age group, 35–39 years.

The following table presents the marriages performed and the marriage rate in Pennsylvania counties in 1932 and 1933:

MARRIAGE RATES IN PENNSYLVANIA COUNTIES: 1932-1933

	Marriages Performed		*Marriage Rates**	
	1932	*1933*	*1932*	*1933*
STATE TOTAL	56,031	63,459	11.4	12.8
Adams County	242	295	12.8	15.6
Allegheny County	5,706	7,018	8.1	9.8
Armstrong County	415	520	10.4	12.9
Beaver County	540	819	6.9	10.2
Bedford County	178	182	9.5	9.8
Berks County	1,479	1,609	12.4	13.3
Blair County	599	724	8.4	10.1
Bradford County	502	521	20.5	21.2
Bucks County	1,564	1,611	31.3	31.8
Butler County	630	701	15.5	17.2
Cambria County	841	972	8.2	9.5
Cameron County	52	65	19.6	24.5
Carbon County	341	358	10.7	11.2
Centre County	242	239	10.4	10.2
Chester County	925	966	14.3	14.8
Clarion County	213	248	12.3	14.4
Clearfield County	409	502	9.4	11.6
Clinton County	227	249	14.1	15.4
Columbia County	292	317	11.9	13.0
Crawford County	434	489	13.7	15.4
Cumberland County	235	257	6.7	7.2
Dauphin County	912	946	10.9	11.2
Delaware County	3,282	3,428	21.6	21.8
Elk County	178	188	10.6	11.2
Erie County	1,853	2,206	20.6	24.2
Fayette County	720	983	7.2	9.7
Forest County	40	44	15.4	17.0
Franklin County	265	255	8.1	7.7
Fulton County	73	75	15.8	16.2
Greene County	232	225	10.5	10.0
Huntingdon County	204	233	10.5	11.9
Indiana County	426	530	11.3	14.1
Jefferson County	350	372	13.4	14.3
Juniata County	79	101	11.0	14.1

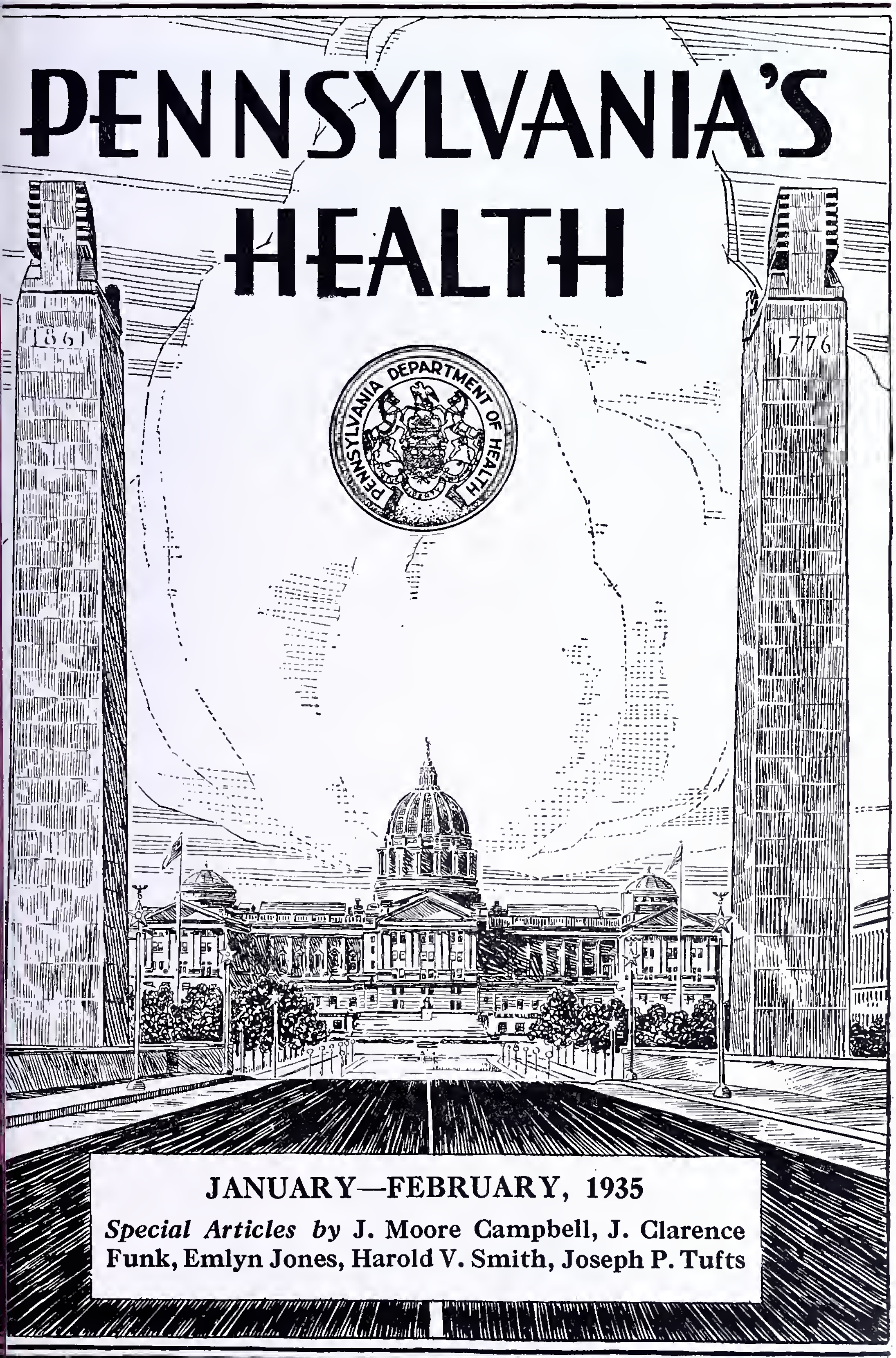
*Persons married per 1,000 population.

MARRIAGE RATES IN PENNSYLVANIA COUNTIES: 1932-1933
(Concluded)

	Marriages Performed		*Marriage Rates**	
	1932	*1933*	*1932*	*1933*
Lackawanna County	2,049	2,140	13.0	13.5
Lancaster County	1,139	1,199	11.3	11.7
Lawrence County	1,177	1,669	23.6	33.1
Lebanon County	437	446	12.9	13.1
Lehigh County	1,120	1,336	12.6	14.8
Luzerne County	2,585	2,711	11.3	11.7
Lycoming County	434	468	9.1	9.7
McKean County	342	392	12.1	13.7
Mercer County	1,228	1,592	24.5	31.5
Mifflin County	233	258	11.0	12.0
Monroe County	329	336	22.6	22.7
Montgomery County	1,312	1,499	9.4	10.4
Montour County	75	97	10.3	13.2
Northampton County	1,043	1,040	12.1	11.9
Northumberland County	621	763	9.6	11.7
Perry County	97	122	8.9	11.2
Philadelphia	9,971	10,828	10.1	10.9
Pike County	155	163	40.6	42.4
Potter County	120	142	13.7	16.2
Schuylkill County	1,180	1,250	9.9	10.4
Snyder County	113	119	11.8	12.3
Somerset County	341	385	8.4	9.5
Sullivan County	98	103	26.1	27.5
Susquehanna County	487	571	28.8	33.8
Tioga County	263	291	16.5	18.3
Union County	123	158	13.8	17.6
Venango County	256	343	8.0	10.6
Warren County	212	247	10.2	11.8
Washington County	973	1,187	9.3	11.3
Wayne County	188	215	13.1	15.0
Westmoreland County	1,626	2,015	10.8	13.4
Wyoming County	163	190	20.6	23.8
York County	861	936	10.0	10.7

*Persons married per 1,000 population.

PENNSYLVANIA'S HEALTH



JANUARY—FEBRUARY, 1935

Special Articles by J. Moore Campbell, J. Clarence Funk, Emlyn Jones, Harold V. Smith, Joseph P. Tufts

Pennsylvania's Health

Official Bulletin of the Pennsylvania State Department of Health

EDITH MacBRIDE-DEXTER, M. D., Secretary of Health

J. CLARENCE FUNK, Sc. D., Editor

Vol. 13 Harrisburg, Pennsylvania, January-February, 1935 No. 1

"Acceptance for mailing at special rate of postage provided for in Section 1108, Act of October 3, 1917, authorized April 6, 1923."

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Published bi-monthly by The Pennsylvania Department of Health, Harrisburg, Pa. This Journal is free to the people of Pennsylvania. A request to the Editor, Department of Health, Harrisburg, Pennsylvania, will bring a copy of this magazine to your home without charge.

Editorial

"I RESOLVE—"

IT IS an old American custom to make resolutions at the beginning of each year. Likely as not these commitments, made for the good of spirit and body, become uncontrollably weakened a few weeks after birth and die ignobly. Human nature, glorious though it be, has its shortcomings; and highly purposed resolves are among them.

Nevertheless, it truthfully can be stated that in the vast majority of instances the difference between the average person and the scintillating success in any line of endeavor is based upon the congenital or acquired ability to map a course and develop the requisite number of resolutions to keep steadfastly on it.

Thus, will-power, geared to purpose, is the unbeatable factor. And this fact holds equally true whether the ambition be fame, money or abounding health.

In truth, it can be said that success in nearly all lines requires vibrant health as a prerequisite and concomitant. Brilliant minds in low-geared bodies seldom get anywhere, much less attain the heights.

Therefore, it is not too much to say that literally thousands of the mediocrities of today have the lack of bubbling vitality and a consequent absence of purposeful ambition to blame for their condition. Rather a deplorable fact.

But to put health on a pedestal merely for so-called human achievement, is definitely to under-value it. For, after all, health for health's sake should be the motivating power behind any one's desire sincerely to attain and maintain it.

Life, after all, is for the purpose of living. And glowing, full-blooded and militant physical well-being in itself is the goal of all goals.

To the great majority who have missed the mark, because of foolish habits of commission or omission, the first step in real success for 1935 is suggested. It merely involves a few resolutions and the will to keep them. Here they are:

I resolve to get sufficient exercise daily.

I resolve to eat not too much nor too little food.

I resolve to get my proper hours of rest and sleep each night.

I resolve to abolish the excessive use of all stimulants (better still, abolish them altogether).

And I resolve in all other ways to live healthily.

Now, then, how about it? Life at its fullest or just life?

J. C. F.

QUARANTINE

J. Moore Campbell, M. D.

Director, Bureau Health Conservation

SOME five or six hundred years ago European seaport towns, to protect themselves against the introduction of plague from far eastern countries with which they drove a thriving commerce, enforced a 40-day isolation on incoming ships and their cargoes and crews. Our word "Quarantine" is only a slight modification of the French and Spanish words, then used—and these meant a period of forty days.

Not only the word but the principle underlying quarantine work of today remains the same, the general idea being to prevent the spread of infections from one household to another and, occasionally, from one locality to another, by shutting up infectious persons or places.

The original 40-day quarantine was an entirely arbitrary affair so far as duration was concerned—just a guess—since the most learned at that time had not the least idea of the cause of the plague they were trying to avoid nor of the manner in which it was passed from one person to another. Observation had taught them, however, that it was not the part of wisdom to permit these seafarers from plague-stricken areas to come freely among them until it had been shown that they were and continued for some time to be in good health.

Gradually through the years the value of quarantine as insurance against the spread of other infections became apparent as the nature of contagious diseases became more and more understood. Emphasis upon it reached its height during the nineteenth century and it continues to be one of the most valuable means at the health officer's command for controlling certain of the contagious diseases. Its limitations and weaknesses are, however, now well known. Its theoretical possibilities can be easily defeated and actually are sidetracked to a very considerable extent.

To the average person the present-day quarantine periods may be thought to be just as arbitrarily determined as was the forty-day quarantine of medieval Europe. The fact that a child who has mumps may be returned to school here in Pennsylvania as soon as he has entirely recovered from his illness while brothers and sisters in the home who seem to be perfectly well must continue under quarantine for the full period of twenty-one days appears to most to be a staggering bit of inconsistency. When they come to be looked into, however, it will probably be found that we have at the present time only one or two quarantine periods which may be said to be based pretty much on guesswork only and since each of these covers a serious condition, namely, infantile paralysis and scarlet fever, the guesswork will continue to be tolerated with more or less patience until added knowledge suggests more accurate periods.

Quarantine's Two Purposes

Every quarantine period must serve two purposes. It must insure the separation of the patient from the community until he is no longer capable of transmitting his disease and it must likewise insure the separation from the community of other members of the household until it has been shown that they themselves have not contracted the disease to which they have been exposed. Two characteristics of all contagious diseases must be reckoned with here. The first is the length of time that the germs of the disease live in and can be passed in the discharges from the infected person's body and the other is the length of time which is required for actual symptoms of the disease to become apparent after the germ has entered the healthy but susceptible body of some one else. Illness does not develop the moment the germ enters the body nor do the germs die out or disappear in all diseases as soon as the patient is well.

The first of these periods we can call the infectious period and the second the incubation or hatching period of the disease. In one way or another both these periods have come to be sufficiently known for practically all of our common contagious diseases. Thus, quarantine periods can be worked out on a basis of known facts. Sometimes the infectious period establishes the length of quarantine and sometimes the incubation period. For example, the incubation period for diphtheria is quite short—on an average, two or three days, and at most as a rule not more than five. The patient himself, however, may continue to discharge living and dangerous germs from his nose and throat for a number of weeks after his recovery. In this instance the duration of the infectious period rather than the very short period of incubation must be considered in reckoning the diphtheria quarantine time. On the other hand, the infectious period in mumps is relatively short and we believe has come to an end by the time the patient is wholly recovered. On the other hand, the incubation is long, usually between two and three weeks. It is the incubation period rather than the period of infectivity, therefore, which dictates the mumps quarantine and, incidentally, explains that "staggering bit of inconsistency" to which we referred a bit ago.

The Health Officer's Limitations

The most capable of health officers are constantly criticised because they do not, within what is thought to be a reasonable interval, break up epidemics of measles or whooping cough or scarlet fever or of any other of the contact diseases which year after year and in their proper season appear by the scores or hundreds in every community.

The pied piper, as the story is told by Browning, had only to pipe his way through Hamlin Town, first to rid it of the rats which followed his music and, again, of its children when he piped another tune to avenge himself upon the burghers after they had refused to pay his contract price for removing the vermin. Just about as much is too often expected of the health officer, but he has no magic or anything else with which to round up and run out the majority of the contagious diseases which appear in his bailiwick, increase and then gradually disappear for a time. There are a few, too few, which he cannot only control but entirely eliminate with the interested and intelligent assistance of parents and others. But the greater group of these infections is, for the time being at least, quite beyond any possibility of elimination and, after all, only partially susceptible to control through quarantine.

Some diseases have and others should have entirely disappeared from every intelligent and progressive community. Typhus fever was once common but now is rarely seen. Yellow fever, which visited our Gulf seaports yearly, made large areas of the tropics and sub-tropics practically uninhabitable except for immunes, and which postponed the building of the Panama Canal for almost half a century, has been relegated to a small strip of the Atlantic seacoast of Africa. If Pennsylvania's typhoid fever at the present time were equally divided during any one year among the twelve thousand doctors who are practicing in the Commonwealth, not more than one case would occur in the combined practices of any twelve of them. If the average number of cases of smallpox during the last four years were similarly divided among them the practices of nine hundred and ninety-nine of them would have to be combined to furnish a single case; and diphtheria, which not so long ago destroyed between fifteen hundred and two thousand children every year in Pennsylvania and threatened the lives of fifteen to twenty thousand more, would be found only once in the combined practices of four doctors.

Control of Individual Water Supplies Has Markedly
Reduced Typhoid in Rural Sections

These diseases, then, are tending to disappear and our object is to hasten their disappearance, although so long as they remain an effort to control their spread when they do occur must continue to be made. The secret of our success against this particular group, however, is not quarantine. We have accomplished what we have only by rendering people immune (smallpox, diphtheria, typhoid fever) or by directly or indirectly breaking up breeding places of the germs or making conditions unfavorable for their existence (yellow fever, typhus fever and typhoid fever); and in so doing have put man beyond their reach. Not so as regards infantile paralysis, scarlet fever, measles, whooping cough and the other common diseases of childhood. About the causes of these we know next to nothing as compared with our knowledge of typhoid fever or diphtheria. Beyond the fact that the germs are present in the nose and throat discharges of the patient and that the scarlet fever patient may discharge germs from his nose and throat for days or weeks after he has recovered, we are pretty much at sea. Without any present means of immunizing large groups against them, as we can against smallpox and diphtheria, all that we can expect to do is to limit the number of cases which occur. For this we have no weapon except quarantine and it is, unfortunately, prone to miss fire.

It so happens that all of these unpreventable diseases are very contagious during their early stages and before characteristic symptoms, which make diagnosis possible, have developed. Under the most favorable circumstances many others are exposed to the sick before the contagious nature of the illness may be even suspected and in their turn fall sick and infect still more. Obviously the health officer and his quarantines get off to a very poor start, doomed to be several days behind the trouble and in the nature of things never to catch up. Further handicap, as if more were needed, is furnished by those who purposely conceal cases.

If it were possible to quarantine immediately every infectious person and every person who had come in contact with him, quarantine in practice might well measure up to its theoretical efficiency. However, it never can be wholly successful in the control of contagious diseases, for the reasons given, and is of no value in eradicating them entirely.

Childhood Diseases Are Real Hazards

It ought to be widely known that it is a serious mistake to consider the contagious diseases of childhood as of little consequence. Measles and whooping cough kill hundreds annually, especially infants and toddlers, and not infrequently leave older victims handicapped for life by deafness. Mild scarlet fever causes kidney disease just as more severe cases do.

It ought also be widely known that nothing the health authorities can do will so effectually protect the child as common sense supervision, by the parent, of his contacts with other children and visits to crowded stores or playhouses during the prevalence of contagious diseases. Moreover, that quarantines are most valuable when imposed promptly and particularly when established where they hurt as well as where they do not. Not a little must depend, to paraphrase the proverb, upon treating oneself as he would have his neighbor treated until the time comes when we may banish these diseases as we are banishing smallpox and diphtheria by immunizing against them.

The Health Gnome Says—

At New Year's come resolves
To do this or not do that;
'Tis an old Spanish custom,
On which we all stand pat.

Thus, every year in January,
We mould our lives anew;
And give up all sorts of dreadful deeds
That have thrown us quite askew.

So in our minds, and over night,
We into angels turn;
And all those naughty tricks of ours
We resolve to junk and burn.

But being humans, as we are,
Our ardor quickly dims;
And we are promptly back again—
Slaves to our awful whims.

There is one resolution, though,
We should make and keep all year;
Without it, please believe me,
We can never have real cheer.

So, ponder this suggestion,
For it's a mine of wealth;
Live up to Old Dame Nature's laws
And be blessed with vital health.

J. C. F.

LEISURE—FRIEND OR ENEMY?*

J. Clarence Funk, Sc. D.

Chief, Division of Public Health Education

RECENTLY a middle-aged man found himself in a group of four bent on after-theatre amusement. At five A. M., he landed at his hotel with an empty pocketbook and with his body playing unwilling host to a depressing quantity of gin. The evening's diversion had cost him in money exactly fifty-three dollars, in sleep practically the whole night, and in physical disturbance twenty-four hours of misery.

Now the point of this tale lies not in the fact that this chap was a ne'er-do-well but in that he happened to be quite the opposite kind of a person—a successful business man, and in most matters sensible. His experience therefore well illustrates the modern tendency to misdirect priceless leisure into unwise channels.

Again, a few weeks ago a charity ball was held in a mid-western city. It was one of those so-called open affairs where those of high and low degree, rich and poor, known and unknown, in the American manner mingled so delightfully.

The dance began at ten o'clock officially, actually got under way at eleven-thirty, and ended at dawn. Young girls and young men, as well as a few older ones, were over-stimulated in sufficient numbers to be noticeable. Moreover, the smoke from inhaled cigarettes clouded the retiring rooms. A breakfast was celebrated at sun-up with the assistance of more alcoholic mixtures and still more inhaled smoke. And finally, completely fagged out, the lagging guests were motored home; many of the women to sleep fitfully until noon; others soon to make their tired and painful way to offices; and practically all the men to snatch a few hours of disturbed rest before jumping into business suits for the new day.

It scarcely need be said that for the average man and woman parties of these types are not sufficiently frequent to inflict permanent harm upon health. However, there remains the disturbing fact that the general run of citizen, young or otherwise, is out for a good time whenever he can get it; and that this idea more often than not is considered from other aspects than those of physical consequences. Therefore, enter indulgences—and exit health!

Three months ago a once beautiful girl, still in her middle twenties, woefully under weight and decidedly nervous, visited a physician. To quote her mother who sought relief for her "child," she was a "teetotal wreck." And there was no doubting the fact, either.

It was the same old story. High life, gin, jazz, late hours and slavish tobacco addiction. The medical advisor instead of giving the young lady the requested bottle of pills that somehow was miraculously to put her on her feet again, told her foolish mother to take a little interest in her offspring and get her back on a rational living basis. This meant no gin, no inhaled cigarettes, simple food, adequate sleep and regular outdoor and indoor exercise. Whereupon the young lady actually sobbed and "mama" herself was quite upset. Nevertheless, the advice fortunately was followed. And today that girl is

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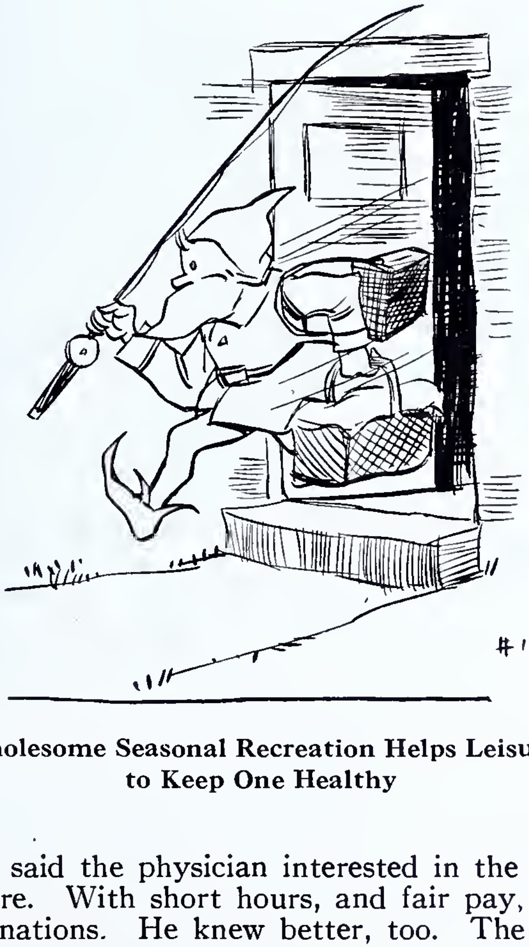
*Reprinted with permission from ***Physical Culture.***

a picture of radiant health who refers to her former method of employing her leisure hours as "pitiful folly."

It would be possible to cite case upon case of the sick and near sick who have become such merely because they have had too much leisure on their hands, too much money in their pockets and too little wisdom in their heads.

Consider the instance of the young mechanic who spent his Saturdays (he was a five-day-week man) and his evenings in the smoke-clouded pool room and who, by a consistent lack of sleep and an over-abundance of foul air, so devitalized a naturally vigorous constitution that he was compelled to take a rest cure at a sanatorium.



Wholesome Seasonal Recreation Helps Leisure to Keep One Healthy

"This chap," said the physician interested in the case, "has been a victim of leisure. With short hours, and fair pay, he followed his own foolish inclinations. He knew better, too. The welfare department of his plant had taught him the principles of healthy life. Nevertheless, working in surroundings scarcely conducive to developing physical hardihood, he abused his body by depriving it of needed fresh air and rest—and with ample opportunity to obtain both. As a matter of fact, his recreational environment was habitually worse than was that of the factory in which he worked. Too bad! But he is no exception. There are many thousands like him."

Which also illustrates that idleness, in the sense of time allowed to the individual to do as he pleases, is one of the outstanding developments of America's present day civilization. The machine and the economic situation have seen to that! Indeed, it may be truthfully stated that kings and statesmen have less actual leisure on their hands than has the average man or woman in the United States. But it appears to be back-firing, not only financially but physically as well.

Just the other day in visiting a small-town hospital the doctor pointed to several young women in the general ward who were suffering from "nervous exhaustion." All of them were bread-winners who had deliberately refused to recognize the elemental fact that some of their free time should have been spent each day in the outdoors and more of it each night should have been invested in sleep.

"If old Nature would be allowed only an even break with such foolish young women, wonders could be accomplished. Instead, they slap her in the face. And this is the result," lamentingly remarked the doctor.

As a matter of fact, leisure as employed by all types of persons in this country today is far from being a fine art. Nor are the people altogether to blame for the situation. Free time in quantity being a new and unhappily for many, an enforced toy, misuse is bound to result.

No more outstanding example of that fact can be offered than the utter, and one may say contemptuous, disregard for prudent relaxation as exhibited by so many of the youngsters. Present day custom sends these thrill-seekers out on a cement highway to dubious amusements and brings them back in the early morning hours unwilling or unable to give a satisfactory account of themselves. It can be safely said that millions of hours are thus nightly consumed throughout the nation. Moreover, it may be added that these hours are doing little to develop health and beauty. Quite likely they are damaging both.

And, as with the younger generation, so it is with many of not such tender age who indulge in health-breaking follies under the misguided notion that so to behave is the very essence of smartness.

A very successful bridge builder quite openly boasts of his "high grade private stock"; and follows up the boast by offering the stuff to all his guests upon all occasions or no occasion at all. Consequently, while his bank balance, in spite of the depression is still ample, his health balance is diminishing, as is also that of his otherwise excellent wife. Week-ends are exceedingly damp and damaging to both of them. And his evenings at home are quite likely to be the same. Brains for business, but no brains for leisure!

So it comes to pass that the United States is treated to the spectacle of society more or less generally indulging in liquor, late hours and exotic entertainments. And in this manner multitudes, "making whoopee," are victims rather than masters of their play hours.

Of the lesser evils consider bridge—that diversion which seems to have captured much of America's leisure time. This worthy game annually eliminates countless hours of milady's possibilities for her physical welfare. However fascinating cards may be, they are a distinct liability when their play excludes the essential advantages of outdoor exercise and air.

Several years ago a woman of some fifty-odd years was pointedly asked by her physician from whom she was seeking advice, "Just what *are* you doing?" "Doing?" she replied indignantly, "why absolutely nothing!" Which happened to be the exact fact. She employed her leisure, of which she had more than her share, by imitating the little rock of poetic fame that kept "sittin' still."

A real artist she was at it, too. A big breakfast, the morning paper, her mail, then telephone visiting, lunch in over-abundance, bridge at home or at a friend's house via auto, then tea, then dinner in over-abundance again, then the evening paper, more bridge and so to bed. Only to arise the next morning to repeat the performance. A perfect illustration of unwise and unhealthy immobility!

Plain as the situation was, this lady became incensed at the intimation of improper living. But it may be added that she wasn't incensed long, inasmuch as she died shortly afterward—killed by leisure.

While of course this is an extreme example, her counterpart in lesser degrees may be found in thousands of American homes; and this, despite the undisputed fact that inactivity is neither productive of fortune nor good health.

NOW JUST SIT THERE AND REST AWHILE!
FATIGUE
WALT HUBER

Rest Should Be Prominent in the Leisure Program

A skinny, scrawny and pale-looking fellow, for instance, works eight hours at a desk, rides home in a trolley-car, eats his evening meal, reads the news and then turns his attention to his radio set and keeps it there until midnight.

Now it certainly must be admitted that some excitement and much pleasure are connected with a dial-in on broadcasting stations hundreds of miles away. However, such enthusiasm for this *stationary* diversion that keeps millions of men glued to a chair all evening, for evenings on end, is simply an example of a disregard for basic physical needs. The same also may be said of the voracious book readers who spend night after night in satisfied and unhealthy composure.

These radio fans and book fiends apparently do not realize that human flesh and blood, in order to function at top-notch efficiency, demand exercise and special care which frequently can be obtained only during the leisure hours.

Movie fans, to cite an extremely general illustration, who rush to theatres all the time, are doubtless being entertained and often splendidly so. But thus to tickle one's head at the expense of the rest of oneself is carrying the thing to extremes. The wise man or woman will see to it that in addition to moving-picture pleasure the body gets in terms of pure air, exercise, sleep and good food what it requires.

It is quite reasonable to conclude that literally millions of Americans, in one way or another, are depriving themselves of the supreme gift of vibrant living merely because they are indifferent to the manner in which they utilize a portion of their off-duty time.

However, in all fairness it must be admitted that the cult of vigorous manhood and womanhood seems again to be slowly but surely gaining ground.

"The man or woman, boy or girl, who appears at a dance in a semi-alcoholized condition no longer receives the smiling toleration of the dowagers. Moreover, some of us mothers are painfully aware of our pale daughters and our paler sons," recently remarked one of the older social leaders of a metropolitan city.

Said another, though younger, leader, "We are realizing that beauty parlors and cosmetics, while entirely logical additions to natural attraction, cannot successfully be employed as substitutes for the well-proportioned body and a glowing complexion. Consequently, exercise and obedience to the rules of health are steadily growing in popularity. We high-pressure pleasure seekers have discovered to our sorrow that the high-jacking and racketeering of bodies for the purpose of appearing sophisticated only bring dividends of wasted time. wasted bodies and wasted lives." . . . . .

A familiar figure on the bridle paths of Rock Creek Park in Washington is Senator Borah. No greater enthusiast for horseback riding exists in that great city of enthusiasms. Well does the senator from Idaho know that the leisure hours spent by him in the saddle represent one of the finest methods of maintaining that vigor which is so universally associated with his dynamic personality.

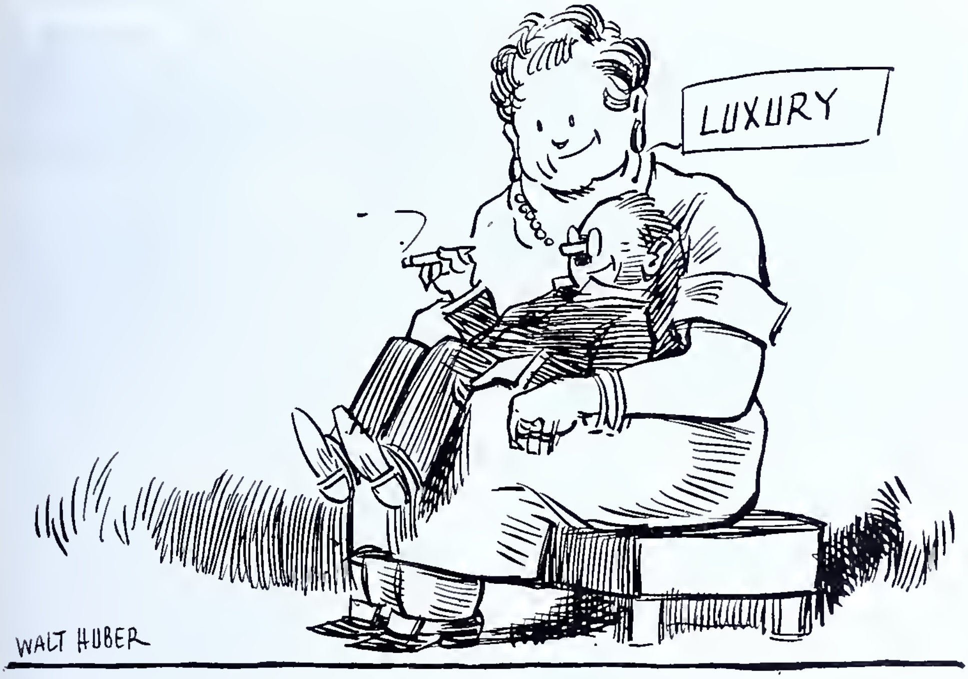
It would be easy to name thousands of business leaders who put their leisure time definitely to work for their own welfare. . . . . . Topping the list is John D. Rockefeller, Jr., an equally ardent exerciser.

Remarked a philosophical friend the other night when discussing this question with him, "I think the magazines are prone to overplay the factor of hard work in this success business. And in so doing neglect that which, to my mind, is the real secret of the whole thing. To be able to work so consistently hard as to arrive at the top rung of the ladder tremendous vitality is required. The attaining and maintaining of this vigor is as intelligently sought after by the leaders as are the dollars they make. Show me the man or woman," he concluded, "who appears in the success periodicals, and invariably you will point to one whose first aim in life is to live."

A nationally known manufacturer over the lunch table the other day summed up the situation by saying, "Business is a nerve-racking affair. Concentration is required. Vital decisions frequently demand lightning judgment. These things call for the keenest sort of intelligence and that means one hundred per cent health. Realizing this, I took my physical self in hand years ago and have kept it there. And so with the proper use of some of my leisure time I have been able for a long while to boast modestly of muscles like iron, of a circulation that represents blood uncontaminated by poisons or stimulants, and of an abounding vitality. Without these things I could not have achieved my success."

Thus from social and ledger points of view the gymnasium is becoming ever more popular. Indoor and outdoor swimming pools are being built by the hundreds and patronized by the thousands, and golf courses in season are crowded. Daily exercise is attaining its rightful place in the living schedule. And perspiration, hitherto frowned upon as plebeian, is being appraised at its true value—which is high indeed.

However, quite aside from cold-blooded calculation, the recreational styles are decidedly on the upgrade. The outstanding amateur sportsmen and sportswomen are favorably impressing young America with the idea that physical aptitude and splendid health are indeed more to be desired than are devitalizing "good times." . . . . .



Leisure + Luxury = Low Vitality

Indeed, the turning point appears to have been reached. Said an ex-flapper the other afternoon, "It was all quite exciting at first. Gay parties, intoxicating music and the 'go' of it, but I suddenly realized that headaches and illness were taking the joy out of life so I cut *it* out. Instead, I go to the pool for a swim regularly three times a week. I walk two miles each day, rain or shine. I try to sleep at least eight hours every night, and am on more than speaking terms with the gym. I am happy, am having more fun than I ever had, and I am wonderfully alive!"

And the girls are also discovering something else quite as important. Nervous and highly camouflaged young women are not at all appealing to the opposite sex. Wise to present day deception, men are no longer satisfied with rouged lips and thin, outraged bodies.

"Oh, yes," frankly remarked a senior college boy to whom the question had been broached, "I play around with all kinds. I have to. But when it comes to marrying I shall choose a healthy, outdoor girl."

There is a world of meaning in that remark. Damaged goods, damaged by a misapplication of leisure, are less marketable than formerly. Besides, the rule most decidedly works both ways.

"I thought I was smart," admitted a recent convert, "but I fell in love and was flatly told that hollow cheeks and burnt up energy were poor assets for a husband. I am building up now and trying to make a real man of myself." And so the story goes. It is a significant sign of the times.

Young and old, weak and strong, realize that the world today is the most interesting and amazing spot in the history of mankind; that the privilege of coming into it was something with which they had little to do, but that with the privilege of remaining happily, healthfully and enthusiastically on it they have indeed very much to do.

Hence the American public is slowly though steadily reverting to the old gospel of health and joy and life. Consequently, it is gradually unpopularizing those effeminate and degenerate forms of diversions that rob people of vitality and happiness, and placing in their stead common sense activities and moderation which aim at physical perfection.

Leisure, that marvelous product of present-day civilization, is therefore being seriously considered by many at last. It is now working to build up rather than to tear down. It is the medium through which hundreds of thousands are acquiring robust health and a hitherto unexperienced joy of life. This being so, it perhaps may be a very personal but nevertheless a very logical question to ask: *Your* leisure, is it friend or enemy?

HEALTH LAWS AND ENFORCEMENT

Emlyn Jones, M. D.
Director, Bureau of Vital Statistics

"LAWS define rights. Men enforce them. For record of enforcement, we go to acts, and to conditions."

What health rights a community intends to enforce will, as a rule, be found in its health code. What health rights are actually enforced, can be learned only by studying both the people who are to be protected and the conditions in which these people live.

A street, a cellar, a milk-shop, a sick baby, or an adult consumptive, tell more honestly the story of health rights enforced and health rights unenforced, than either sanitary code or sanitary squad.

The Common Towel—A Disease Spreader. It is Illegal in Pennsylvania

Not until we turn our attention from definition and official, to things done and dangers remaining, can we learn the health progress and health needs of any city or state. Those who judge a community's health rights by its health laws will get an erroneous impression, as a great many advocates have thought the battle won when boards of health were given almost unlimited power to abate nuisances, and told how to exercise those powers.

Whether work is done right, whether inspectors do their full duty, whether babies are protected, can be learned only from statements in black and white, that show accurately the condition of dairies, milk-shops, the character of milk found and tested, and the number of babies known to have been sick or to have died from intestinal diseases chiefly due to unsafe milk.

It is a great pity that we Americans have taken so long to learn that laws do not enforce themselves; that even good motives and intentions do not insure good deeds. Thousands of lives are being lost every year; millions of days are taken from industry and wasted by unnecessary sickness; millions of dollars are spent on curing disease; the working life of the nation shortened; the hours of employment curtailed; because we have not seen the great gap between health laws and health law enforcement.

We must concentrate our attention and judge local, state and national government by what government does. Gains of men and progress of law are useful to mankind only when converted into deeds that make men freer in the enjoyment of health and earning power. In protecting health, as in reforming government, an "ounce of efficient government is worth infinitely more than a moral explosion. One month of routine, unexciting efficiency, will accomplish more than a scandal or catastrophe."

Such routine is possible only when special machinery is constantly at work, comparing work done with work expected; health practice with health ideals.

The Elimination of Public Nuisances is a Fundamental Health Activity

Until recently the most reliable test of health rights not enforced was the number of preventable, communicable, contagious, infectious, transmissible diseases, such as smallpox, typhoid fever, scarlet fever, diphtheria, measles, whooping cough.

By noticing streets and houses where these diseases occurred, we learned a century ago that the darker and more congested the street, the greater the prevalence of fevers and the greater the chances that one attacked would die. The well-to-do remove from their houses and their streets the dirt, the decomposed garbage and stagnant pools from which fevers and disease seem to spring. It was because fever and congestion go together, that laws were made to protect the well-to-do, the comfortable and the clean, against the slum.

We should not wait for contagion, before taking action, as it is an expensive way of learning where health protection is needed. Even when infected persons and physicians are prompt in reporting the presence of disease, it is often found that conditions that produced the disease have been overlooked and neglected.

For example, smallpox comes very rarely to our cities today. Wherever boards of health are not worried by "children's diseases," as is often the case, and wait for some more fearful disease such as smallpox, there you will find that garbage in the streets, accumulated filth, surface sewers, congested houses, badly ventilated, unsanitary school buildings and churches, are furnishing a soil to breed an epidemic in a surprisingly short time.

Where, on the other hand, boards of health regard every communicable disease as a menace, you will find that health officials take certain steps to remove the soil in which preventable diseases grow.

Two things will disclose the strength or weakness of a bank, and the soundness or unsoundness of a nation's banking policy; namely, a financial crisis, or an expert audit.

A searching audit that analyzes each debit and credit frequently shows that a bank is solvent, only because it is not asked to pay its debts. It continues to do business, so long as no obvious weakness appears, analogous to measles, adenoids, or paralysis.

A frequent disorder of banking results from doing too big a business on too little capital; in making too many loans, for the amount of cash held ready to pay depositors upon demand. This disorder always comes to light in a crisis—too late. It can be discovered, if looked for in advance.

Many individuals and communities are likewise physically solvent, only because their physical resources are not put to the test. Weaknesses that lie near the surface can be discovered before a crisis, by a physical examination for individuals, and sanitary supervision for communities. Whether individuals or communities are trying to do too much business for their health capital; whether the health reserves will pay debts that arise in a crisis; whether we are ill or well-prepared to stand a run on our vitality—these things can be learned only by carefully analyzing our health reserves.

The vital statistics of greatest consequence are the number of deaths, the number of births, and the number of cases of sickness from transmissible diseases. With few exceptions, only those patients who refuse to follow instructions will die of measles, diphtheria or smallpox. The scarlet fever patient who recovers and goes to church or school while "peeling," can cause vastly more sickness from scarlet fever than a patient who dies. Sickness is a radiating center of anxiety; and often of death in the prime of life, and thus closes the gates of happiness on more than one life.

Let us not forget that the "bitter cry of the children" still goes up to heaven, and that civilization must hear, until at last it heeds the imprecations of forever wasted years of millions of lives.

THE HYPNOTIC DRUG MENACE

Harold V. Smith

Chief, Division Narcotic Drug Control

NORMAL people are horrified at the mere thought of becoming personally addicted to the use of narcotics or habit-forming drugs. This is but natural, for who would voluntarily give up health and happiness to become a slave to the world's most hideous taskmaster? And yet large numbers of Pennsylvania people are blindly doing that very thing—even losing their lives through it!

The innocent and well-meaning laity give many reasons for unsupervised and indiscriminate indulgence in certain hypnotic, analgesic, and somnifacient drugs. Reasons include insomnia, nervousness, overweight, rheumatism, pain, worry, over-eating, and what not. Among the many drugs and "cure-alls" on the market are the barbiturates, including veronal, allonal, luminol, and amytal; chloral hydrate; amidopyrine or antipyrine; cinchophen; trional; sulphonal; paraldehyde; and dinitrophenol.

Careful investigation by the State Health Department's Division of Narcotic Drug Control reveals the alarming increase in the use of such drugs. Thus far Pennsylvania classifies them as non-narcotic and non-habit forming. Just the opposite is true.

The ease with which such hypnotics and analgesics are obtained further complicates the already complicated and ever-pressing problem of successful narcotic enforcement. Their promiscuous use not only tends to make new addicts, but greatly hinders the rescue and rehabilitation of those unfortunates already addicted to the better known forms of narcotics, such as opium, morphine, heroin, cocaine, and marihuana.

It is appreciated that, in therapeutic doses for legitimate cases, much good may be accomplished by these and other similar drugs. On the other hand their reckless and uncontrolled use not only results in addiction and crime, but seriously jeopardizes life and health.

It has been discovered that the barbituric acid group has a special action of a narcotic nature on the higher brain cells. Continued use has, among other ailments, caused impairment of speech and gait, paralysis of the eye muscles, hallucinations of vision, and various forms of intoxication.

The barbituric acid derivatives have what is called a cumulative and selective effect. Thus we find that not only full doses of these drugs have a widespread toxic effect on the brain from cortex to medulla, but that quite small repeated doses are not all eliminated from the body. Such dosage builds up a cumulative and disastrous effect which might easily have a special action on select groups of nerve cells such as the cortex, or the midbrain, or cerebellum, or even the spinal column. Use of the barbiturates has also been held to develop leukopenia, a serious disease characterized by a deficiency of white blood corpuscles.

Amidopyrine in particular is the drug held to play an important part in the production of granulocytopenia, agranulocytic angina, or malignant leukopenia. This disease is marked by destructive ulcerative lesions of the throat, leukopenia, marked reduction of granular cells in the blood and bone marrow, and often icterus. This disease affects principally middle-aged women and is fatal.

Investigation of the many reports and complaints reaching the Division of Narcotic Drug Control, and contact with many outstanding medical authorities, reveals further ravages of these drugs. For instance, over-weight is a problem receiving much popular attention at present. There seems to be only one non-surgical way of eliminating excess fat from the body, and that is by burning it off. Dieting is one way of burning up fat, but the public is continually being told of other ways to burn up excess weight without dieting.

Many serious illnesses and disturbances of bodily functions, as well as several deaths, have already been reported as caused by use of so-called reducing drugs.

Dope Does Not Always Appear To Be As Vicious As This

Dinitrophenol and other dinitro compounds are the drugs generally used. These chemical compounds accelerate the body metabolism to such an extent that a marked loss of weight is produced. In other words, this treacherous drug really does stimulate the body to burn itself up. Unfortunately this "burning up" is not confined to the fat tissues alone, but also other tissues are affected. Acute and serious poisoning results. The grave dangers attendant upon the reckless and indiscriminate use of such preparations are coming to be recognized throughout the United States. Already the California State Health Department has placed sole distribution of this dangerous drug in the hands of the medical profession.

Among other such harmful drugs and habit-forming cure-alls is cinchophen, which is a derivative of quinoline. Additional preparations containing this drug are atophan and atoquinol. These have been extensively advertised in one form or another as a remedy for neuritis, rheumatism, and arthritis. That any medicine containing such a potentially dangerous substance as cinchophen should be used only under the care of a physician is proven by the fact that use of this drug has caused toxic jaundice, acute yellow atrophy of the liver and death.

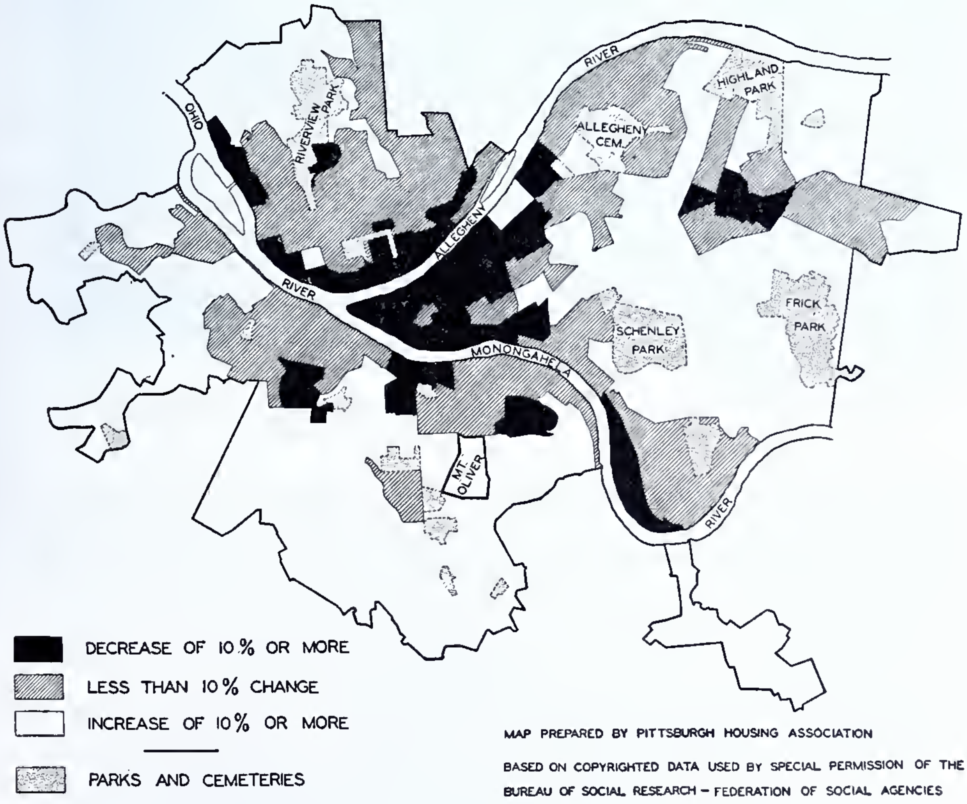
Dispensing or sale of hypnotic drugs, therefore, could well be restricted to the written prescription of a duly licensed physician, dentist, or veterinarian. Such prescriptions should not be refillable unless the practitioner so specifies. Otherwise, as frequently happens now, the patient continues to receive his "medicine" without reporting back to the practitioner for examination, further diagnosis and professional treatment. Many such persons become addicted without the physician's knowledge. These provisions would necessitate the service of a registered pharmacist or qualified assistant in preparing such prescriptions, and thus eliminate the promiscuous and unsupervised retailing of such drugs to the detriment of unsuspecting victims.

HOUSING AND ITS RELATION TO HEALTH

Joseph P. Tufts
Executive Director, Pittsburgh Housing Association

PROPER housing constitutes a conditioning factor in the well-being of every family. It is a conditioning factor which may determine our psychological attitude toward life. It certainly conditions health as do proper or improper diet and adequate or inadequate clothing. We have known for many years that excessive mortality and sickness rates prevail in those areas of our cities commonly known as slums. Recently there have been population shifts away from these older areas. There has been a more rapid depreciation of values while at the same time costs for maintaining public services have remained the same or have increased. Consequently, the drain on the municipal pocketbook and the pocketbook of the slum owner has focused renewed attention on our slum areas. These economic and social factors have come to the fore and now new significance is attached to data which at one time were regarded as highly interesting but not very useful. As long as slums paid dividends, there was no practical way in which to clear them of unhealthy structures, create planned parks or open spaces, or provide for large-scale rehousing of the population.

POPULATION CHANGES – 1920 TO 1930



MAP PREPARED BY PITTSBURGH HOUSING ASSOCIATION

BASED ON COPYRIGHTED DATA USED BY SPECIAL PERMISSION OF THE BUREAU OF SOCIAL RESEARCH – FEDERATION OF SOCIAL AGENCIES OF PITTSBURGH AND ALLEGHENY COUNTY

For many years laws of the Commonwealth have recognized the health hazard of insanitary housing. Considerable power has been given to health officials to compel vacation of buildings unfit for use and even to destroy unsanitary buildings at the owners' expense. Recently there has been more use made of these powers, probably due to the fact that houses in a state of disrepair have been vacated, and the owners, realizing the little chance of a profitable income, even though minimum repairs be made, have agreed to destroy their buildings in order to save taxes. Reports from the Bureau of Building Inspection and the Bureau of Sanitation of the City of Pittsburgh indicate that nearly seven hundred buildings have been demolished in the first eleven months of 1934, the majority of which were removed on the grounds of insanitation.

Our European neighbors are far ahead of us in assuming public responsibility for providing low-cost housing and clearing unhealthy areas which have been poorly planned and have invited slovenly occupants. Now that slum areas of our cities present an economic menace as well as a social and health menace, and since there is a real prob-

SELECTED HOUSING DATA ON SOME OF PITTSBURGH'S *DARK* SPOTS, IN COMPARISON WITH DATA FOR THE WHOLE CITY OF PITTSBURGH

(Percentages Relate to Total Dwelling Units in the Respective Areas)

LOCALITY	Total No. of Dwellings	No Hot Water	No Running Water	No Indoor Water Closet	No Bath-Tub or Shower
1. Downtown Section (Wards 1 and 2)	2,759	48.9%	4.9%	33.8%	49.9%
2. Soho (Part of Ward 4)	1,258	56.7%	0.3%	22.9%	48.6%
3. Hill District (Ward 3 and Part of Ward 5)	9,831	38.2%	2.7%	15.1%	30.6%
4. Butler Street Section (Along the Allegheny 33rd to 57th Street Part of Wards 6, 9, 10)	5,569	61.1%	.5%	27.2%	59.0%
5. South Side (Part of Wards 16 and 17)	5,497	73.3%	0.9%	52.8%	67.1%
6. Woods Run (Part of Ward 27)	597	74.9%	1.2%	50.6%	74.0%
7. Manchester (Ward 21)	4,923	39.4%	1.4%	16.3%	38.8%
8. East North Side (Wards 21, 23, 24)	6,986	54.7%	0.7%	28.0%	53.1%
9. Garfield (Part of Ward 10)	1,904	2.7%	0.2%	15.0%	24.0%
Average for the Whole City of Pittsburgh	153,810	25.8%	1.0%	12.1%	24.0%

ability of large-scale slum clearance by the aid of the Federal Public Works Administration, we can examine with interest the health aspects of housing to see what factors are associated with morbidity and mortality.

For example, consider Pittsburgh. As an indication of those areas in that city which can be regarded as slums, part of the data from the Real Property Inventory made by the Bureau of Business Research, University of Pittsburgh,* can be used. Eight areas have been indicated as the "dark" spots insofar as housing is concerned.

If we consider these areas as containing the greatest proportion of substandard housing, let us compare them with other significant data.

Garbage, Rubbish, Ashes Accumulation, Tuberculosis—A Fine Combination!

From records compiled by the Pittsburgh Department of Health, deaths from pulmonary tuberculosis for the years 1931, 1932 and 1933, it is to be noted that the largest concentrations are found to correspond generally to those areas which lost population between 1920 and 1930, and to the "dark" spots. In one of these areas, the Hill District, the greatest concentration of tuberculosis mortality is found. Undoubtedly, improper living habits caused by any number of factors, bad housing being one, tend to break down the resistance of individuals to all types of disease. In this connection, improper housing should be considered a conditioning and not necessarily a causal factor in the development and spread of tuberculosis.

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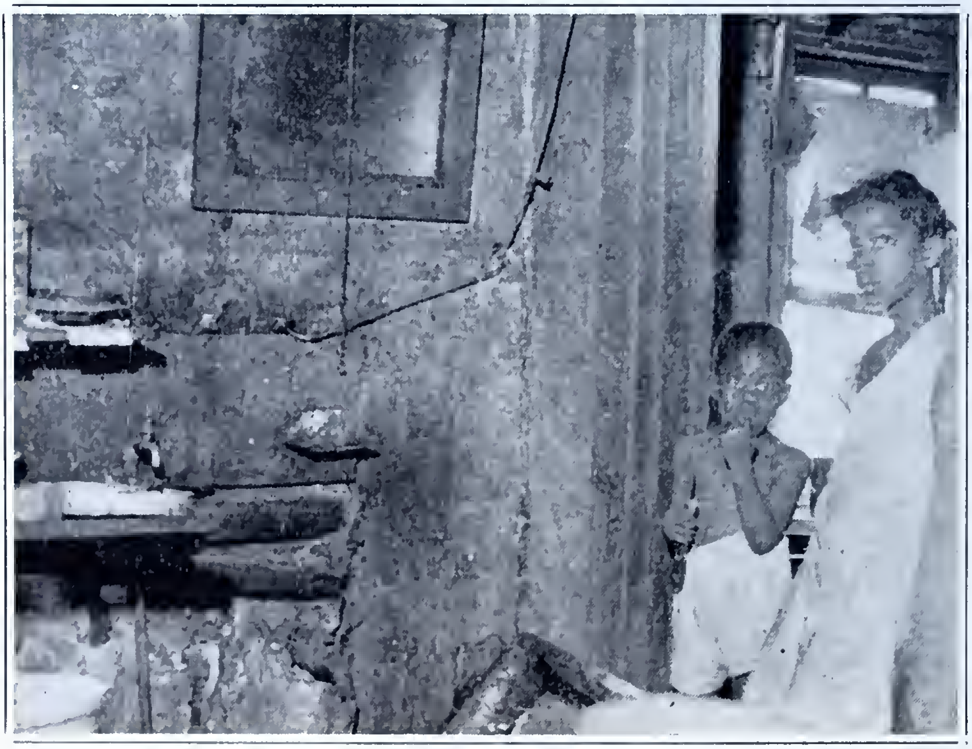
*Housing Statistics for the City of Pittsburgh, Bureau of Business Research, University of Pittsburgh.

The Public Health Nursing Association, in a recent report, indicated a steady increase in the number of tuberculosis cases reported each year to the Health Department—625 cases in 1929, and 1,093 in 1933. "The evil but entirely logical effects of the continuing depression must be considered as a primary contributing factor," the report stated. This contributing factor of depression includes lowered living standards of improper and inadequate food, and lowered housing standards especially for those who have been forced to become recipients of unemployment relief. The fact that 33 per cent of the total cases coming under the supervision of the Public Health Nursing Association last year were residents of the Hill District, notorious for its sub-standard housing, gave reason to suspect that bad housing and insanitary conditions have some relation to those factors causing tuberculosis.



A Kitchen Without a Sink. Disease and Death Stalk This "Home"

In the summer of 1934, a study was made by the Pittsburgh Housing Association of the housing conditions of 392 tuberculosis patients living in the Hill District and receiving care from the Public Health Nursing Association. Complete information on sanitation, light and air, needed repairs, cellar or basement living, etc., was secured on 372 houses. A summary of the information disclosed the following facts:

43 per cent are in need of major structural repairs. One out of seven houses was unfit for use.

33 per cent had cellar or basement living rooms. One out of every six used the cellar or basement for sleeping purposes.

30 per cent of all the living and sleeping rooms were without adequate light and air.

30 per cent of the dwellings had defective plumbing including defective water closets, broken sewer or water lines or sanitary fixtures.

In 71 instances, two or more families were living where facilities were intended for only one family.

There were found 81 cases of overcrowding, some more serious than others.

The following are examples of some of the more serious overcrowded conditions:

> Shipton Street—2 families composed of 11 persons were living in 3 rooms.
>
> Beebe Street—13 persons, 3 families, were found in 4 rooms. The house had defective plumbing and the rooms were dark.
>
> Pasture Street—10 persons were living in 4 rooms. Five double beds were in two sleeping rooms.
>
> Linton Street—3 families were living in a one-family dwelling; a cellar room, with no window. was used as a bedroom.

Whether or not bad housing can be considered as directly causing tuberculosis, the fact remains that the increased incidence of tuberculosis has been found to accompany the breakdown in living standards and to follow particularly closely the breakdown in housing standards.

Lobar and broncho pneumonia deaths for Pittsburgh in the years 1931–33 have also been segregated by location. Again it is found that the concentration of deaths is in those areas with the lowest levels of sanitation and housing.

Undoubtedly the evidence against the slum as an expensive luxury and as a growing menace to community health is mounting. The proposal that a direct attack be made with the aid of the Federal government is gaining support. However, the demolition and re-housing program must be coupled with well-directed health education, if best results are to be secured. When this program is under way with competent direction and planning, we should expect considerable progress in a period of ten years.

DEPARTMENT NEWS

CRIPPLED CHILDREN—One hundred and eighty-eight patients are now being treated at the Crippled Children's Hospital at Elizabethtown. This work has attracted national attention.

Modern surgery perhaps has no more spectacular method of impressing itself upon the average layman than as evidenced in its orthopedic phase to make anew little bodies twisted and turned by fate or disease. It is a service which must result in tremendous satisfaction to those capable of performing it.

That the Pennsylvania State Department of Health has materially helped in this great reconstructive work again indicates an enviable leadership.

This Little Lady Is Now Completely Restored to Normal

SOCIAL DISEASES—Two hundred and eighty-six venereal disease clinics with a total patient attendance of 7,882, and follow-up home visits associated with the control program of 597, represent the Department's activities in the supervision of these vicious and death-dealing diseases during the last four weeks. During the same period 124 patients were quarantined for venereal diseases in the various sequestration stations set aside for that purpose.

In discussing this matter recently, Dr. E. S. Everhart, chief of the venereal disease section, said, "A misconception persists relative to the quarantine procedure for venereal disease. Relatives and friends of many of the patients who are forcibly detained under quarantine believe that a procedure under the criminal law has been invoked and that the action had been taken to punish the offender. As a matter of fact, the application of quarantine is no different than that of any other quarantine which is based upon the policy of protecting the public."

MORE LECTURES AT CCC CAMPS—As a result of the conference held several months ago between officials of the Third Corps Area, supervising CCC camp activities and Department heads of the State Government, the Department of Health committed itself to furnish lecturers on personal and public health subjects to such camps as are readily accessible from Harrisburg.

In line with this commitment, lectures have been presented by members of the central office staff in numerous camps within a radius of sixty miles from Harrisburg. Among those taking part in this work are: Dr. J. Moore Campbell, director of the health conservation bureau; J. Clarence Funk, chief, division of public health education; Dr. S. J. Dickey, epidemiologist; Harold V. Smith, chief, division of narcotic control; Dr. E. S. Everhart, chief, division of venereal diseases; G. W. Moore and R. G. Gorman, engineering division; and W. K. Moffett, chief, and Harry E. Shroat, of the bureau of milk control. It is expected that this service will continue from time to time during the winter months.

PARALYSIS CYCLE ON DOWN GRADE—Reports reaching the bureau of health conservation indicate that this Commonwealth has passed through the epidemic cycle of infantile paralysis. This cycle began its deadly upward climb in 1931 resulting in the worst epidemic of this dread disease since 1916.

Definite and continued recession of this vicious disease has been noted. Only 400 cases were reported in 1934. Children up to five years of age are the most susceptible to this malady. Few cases are reported past the age of sixteen.

It should be remembered, however, that poliomyelitis respects neither person nor age. The germs attack adults as well as children. There are no preventive measures such as vaccination. The rich and poor are victims alike. Good food, shelter and protection are no barriers. Immediate isolation and quarantine are necessary to prevent the spread of this infectious disease.

YOUTH AND SPORTS—Owing to the discovery of weakened physical conditions of numerous pupils engaged in major competitive sports, the Secretary of Health recently advised athletic directors and parents to make certain that the pupils in junior and senior high schools engaging in strenuous physical training be carefully checked.

"The benefits of physical training are fully recognized," said Dr. Edith MacBride-Dexter, "but there is also another side to the picture which is sometimes overlooked. In every school group there are certain athletes who, either through ignorance or a desire to earn the coveted letter of their school, compete in athletic contests that are detrimental to their health.

"The standard requirements for school medical inspection as prescribed for first, second and third-class school districts provide that all pupils training for athletic activities in the public schools shall be examined by the school physician, a report of their physical condition being given to the coach, physical director and principal.

"However, in the fourth-class districts there are numerous schools engaged in athletic contests where this type of medical service is not available. Nevertheless, school authorities in such districts should require every student desirous of entering athletic contests to present a certificate signed by a physician setting forth his physical condition.

"The condition of heart, lungs, and the potential danger of hernia should be given careful consideration.

"Parents and school authorities play an important part in this preventive measure," concluded Dr. MacBride-Dexter. "Their cooperation with the Department of Health will go far in protecting the health of our students and school athletes."

ASSISTANCE OF SCHOOL BOARDS ASKED—Field representatives of the school division are holding conferences with school boards in a cooperative effort to control communicable diseases in schools. All school boards are being personally contacted.

A School Medical Inspection

"Teachers have authority to excuse children from school when they display symptoms of acute illness. A Department form is provided especially for that purpose," recently stated the Deputy Secretary of Health. "Such excluded children may not return to school until they have a physician's certificate indicating that they are free from a communicable disease.

"Parent-Teacher Associations are giving full support and cooperation to the Department's effort. It has been definitely proved that a conscientious and energetic application of the regulation definitely reduces absenteeism, much of which is due to transmissible diseases.

"It is desirable that parents gracefully accept the decision of teachers when children are excluded. They should be very prompt in having their personal physician examine the child to check the possible approach of a serious condition, and also promptly make possible the return of the child if the symptoms prove to be harmless."

How about it, school boards and parents?

"BE MORE SPARTAN"—Citizens of Pennsylvania were recently advised by Dr. J. Moore Campbell, chief of the health conservation bureau, to develop a more spartan attitude toward cold weather than they have exhibited in the past. He suggested that a cold day or so sandwiched between near-summer temperatures is no justification for the adoption of extremely heavy over-apparel. He also advised against unduly stepping up the inside temperature. Colds and more serious diseases such as bronchial difficulties, sinus complications and even pneumonia could in many instances be avoided if this advice were to be followed, he asserted.

"The attitude of the average citizen in this latitude," said Doctor Campbell, "is likely to be one of antagonism toward cold weather. Educated to the soft luxury of over-heated homes, many thousands of persons upon the first indication of cold weather insulate themselves by putting on heavy overcoats. It would be better if the average person would realize that it is wiser to feel a little cool than to overdress and then become overheated. Many persons having adopted the heavier clothing persist in wearing it even though many days may register near-summer temperatures. This also results in much risk to health.

"It safely can be said that colds, bronchial difficulties and more serious complications could be avoided by many thousands who will be victims this winter if they change their attitude of antagonism toward frigid temperatures to one of reasonable welcome. This can easily be done by not over-dressing, by walking more in the fresh atmosphere, by being more interested in letting fresh air into the house than by over-heating; in short, living more according to the dictates of nature rather than by following the super-softie attitude engendered by the present luxury age."

SEEK TRANSFER OF PARALYSIS CASES—Letters were recently forwarded by the Secretary of Health to parents of children now receiving infantile paralysis reconstructive treatment at Cresson Sanatorium requesting permission to transfer them to the Mont Alto Sanatorium.

The Department desires to concentrate this work at the latter institution where facilities have been enlarged for that purpose.

The reconstructive work, which involves exercise in water, and massage, has been markedly successful since its inauguration by the Department less than a year ago.

BIRTH RATE DROPS—Continuance of the steady decline in Pennsylvania's birth rate was recently announced by the Secretary of Health. Reasons for this situation include late marriages, the increased life span, the depression and the restriction of immigration laws. The decline first began in 1921.

"A 2.7 per cent decrease in the number of live births has occurred in the first half of 1934 as against the same period in 1933, the latter year having held the record for the lowest live births in the Department's history," said the Secretary of Health.

"The highest rate occurred in 1914 with 27.0 per 1,000 population, while the largest number of babies were born in 1921, totaling 229,452.

"There are several factors involved in the consistently decreasing birth rate. First, more women are living above the child-bearing age than ever before. This situation directly affects the statistics. Again, there has been a definite decrease in marriages. This is due in part to social changes, with particular reference to the large numbers of women who have entered upon independent careers. Then, too, undoubtedly the economic situation has prevented marriage of thousands of young people. Finally, the tight restriction on immigration has prevented the arrival into Pennsylvania of many hundreds of young foreign women among which class large families were the usual custom.

"Our figures show that even at this time there are some communities in Pennsylvania where more deaths are recorded than births. It is too early to draw conclusions on the general situation. A number of the factors involved eventually may be removed when the economic situation has been readjusted. However, it may be said with certainty, both from public health and personal standpoints, that every possible effort should be made to surround the infants now being born with all possible safeguards so that they will mature into healthy citizens."

CONTROL OF TRANSIENT CAMPS—Representatives of the restaurant hygiene division are surveying camps formerly used as civilian conservation centers and recently adapted for transients. The usual sanitary inspection, including food handlers, is involved in this survey.

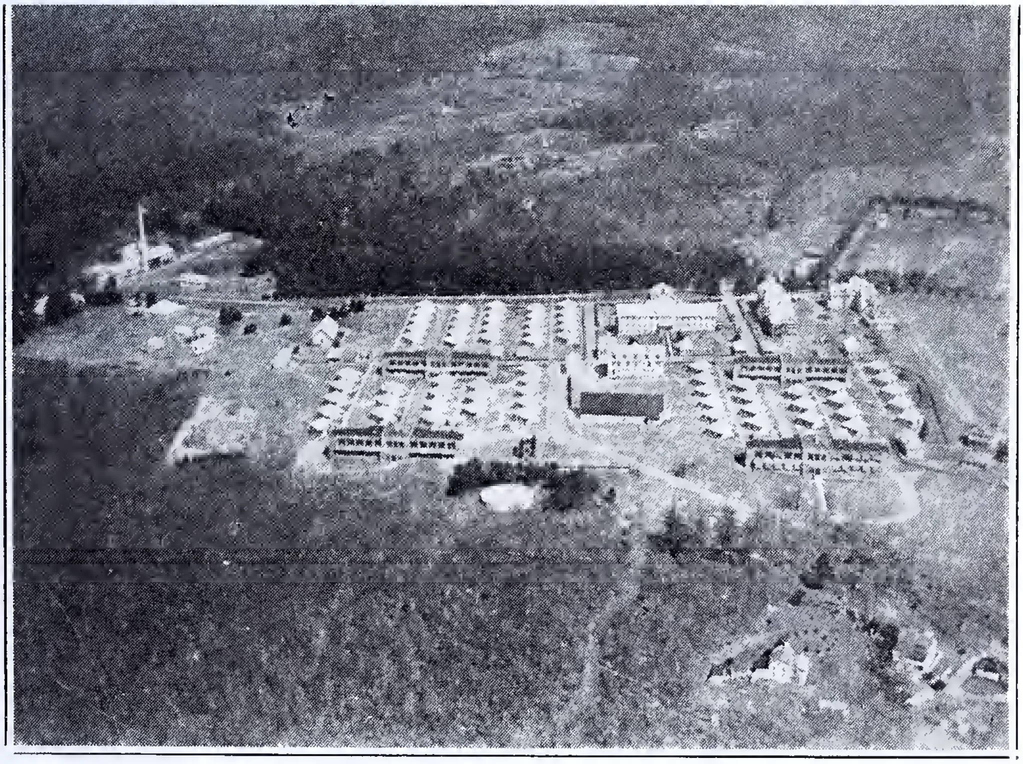
Transient and Tourist Camps Are Under the Department's Sanitary Control

CONTINUE MARIHUANA WAR—The narcotic division recently reported that while the larger city rings dealing in the illicit marihuana traffic have been broken up, a state-wide drive is now under way to eliminate activities of peddlers in many of the less populous centers.

Facts reaching the narcotic division, based on investigations made by both Federal and State agents, reveal a larger traffic in the sale of these insanity-provoking cigarettes than was at first expected. While effective measures have been taken in the large cities, nevertheless there has developed a network of activities which is state-wide in scope. This presents a real problem for the enforcement officers.

The effect of this weed upon persons using it is a release of normal inhibitions. It is therefore being introduced to groups of young men and women as a stimulating and unrestraining whoopee adjunct.

While the Department and Federal officials have repeatedly warned parents as well as school children concerning the direful consequences of the use of the marihuana, much education upon this line apparently remains to be accomplished. The real weapon against the marihuana traffic lies in an informed public. Parents and teachers should advise their children to avoid any advances made by strangers or even friends to use cigarettes containing marihuana.



A Bird's-Eye View of Mont Alto Sanatorium

WARM APPAREL FOR YOUNG CHILDREN—Parents of small children recently were advised by the Department to follow style less blindly in the winter apparel for their children and have more regard for temperature requirements. It was indicated that a large number of smaller children, based upon the present bare-legged fashion, are being subjected to undue exposure this winter.

While it is undoubtedly fashionable for the younger children practically to be stockingless during the winter months, the wisdom of the mode in many cases is questionable, to say the least. It is realized that not only fashion itself but the inclination of the children to dress like other youngsters are two definite obstacles in minimizing the popularity of this practice.

The fact remains, however, that many children, due to faulty living habits involving all classes of society, are physically under par and do not have the amount of resistance to extreme cold which is necessary to overcome the undue exposure to which they are thus subjected. Parents, therefore, who insist that their children brave the winter winds bare-legged should at least make certain that the youngsters' vitality will justify such a procedure. This can be checked up through the family physician.

Speaking generally, the advantages of undue exposure of the lower extremities do not seem to measure up to the possible untoward results. Parents, therefore, are urged to consider this problem as an individual one and abide by the professional verdict.

MANY VISIT CLINICS—During the last two weeks 4,895 patients received advice in the 380 tuberculosis clinics. Four thousand two hundred and fifty-eight patients were paid follow-up visits in their homes by Department personnel as a result of the clinic activity.

During the same period 155 patients were recommended for admission to the Sanatoria at Mont Alto, Cresson or Hamburg, while the remainder were given advice on home treatment and living habits.

HEALTH SURVEY IN HOMES—Twenty-five thousand homes have been subjected to a sanitary survey by seventy full-time health officers of the Department since this annual activity was started during the latter part of 1934.

This survey involved sanitary advice as to plumbing, removal of nuisances and instructions with respect to environmental hygiene generally. It was state-wide in scope. This activity was entirely advisory.

The fact that this work has been done annually for a period of years with definite health results has had much to do with the public's sympathetic attitude for this activity, officials believe.

INSPECT INFANTS—A total of 1,050 home-visits were made by the Department's nursing staff as a result of reports obtained from the registrars on 2,390 births during the last four weeks. These visits were made to check the physical condition of the babies in localities and homes where such investigations would not otherwise be made because of the economic situation. A large number of congenital deformities, sore eyes and other correctible physical defects were discovered and referred to the medical profession.

Vital Statistics Comment

LOOKING FORWARD

Florence Hardy
Statistician

TODAY, much is heard of long-term planning. Society is asking what will be the needs of coming generations. Studies are being made of the population living decades hence—its average income, housing requirements, food, education, protection, recreation. Doubtless, present-day conditions are responsible in part for this research into problems of the future. It is believed generally that many weaknesses in the modern social state could have been remedied by intelligent, constructive planning in the past.

While Utopia will never be reached, it is certain that the correction of some serious disorders is possible. It is interesting to consider what effect a comprehensive program of twenty-five or fifty years ago would have had on existing ills. Would crime and unemployment, to mention only two of the Nation's major problems, have reached the proportion that they have today?

How effective a control campaign can be is illustrated in vital statistics. While this method of planning applies only to health, it shows results of efficient effort over a long period of time. General good health is not an accident—it is a reward for the observance of health rules, applied either to the individual or the community. In the case of a state the credit is due health workers, both public and private, who have safeguarded the people against disease. To understand and appreciate this protection one need only compare the health records of the present with those existing more than a quarter of a century ago.

In 1906 in Pennsylvania:

There were 16 deaths from all causes per 1,000 population.

Deaths of infants under age two from diarrhea and enteritis numbered close to 10,000.

Diphtheria attacked 10,870 people and claimed over 2,400 lives.

One in every 4 deaths from all causes was an infant death.

The deaths and death rate from measles were 1,463 and 20.5 per 100,000 population.

Seventy-three cases and 8 deaths from smallpox were reported.

Tuberculosis was the leading cause of death with a rate of 151 per 100,000 population.

Nearly 25,000 cases and 4,000 deaths from typhoid fever were recorded.

Last Year in Pennsylvania Provisional Reports Show That:

There were 11 deaths from all causes per 1,000 population.

Deaths of infants under age two from diarrhea and enteritis numbered approximately 850.

Diphtheria claimed less than 220 lives.

One in every 12 deaths from all causes was an infant death.

The deaths and death rate from measles were 345 and 3.3 per 100,000 population.

No cases or deaths from smallpox were recorded.

Tuberculosis was the sixth leading cause of death with a rate of 49 per 100,000 population.

Less than 1,000 cases and 115 deaths from typhoid fever were reported.

It is apparent that most of these reductions have been made in communicable diseases. What of the degenerative disorders? A corresponding reduction during the next twenty-five years in the mortality from these diseases depends largely on the long-term planning of today.

ennsylvania's Health

icial Bulletin of the Pennsylvania State Department of Health

EDITH MacBRIDE-DEXTER, M. D., Secretary of Health
J. CLARENCE FUNK, Sc. D., Editor

13 Harrisburg, Pennsylvania, March-April, 1935 No. 2

Acceptance for mailing at special rate of postage provided for in Section 1108, Act of
r 3, 1917, authorized April 6, 1923."

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blished bi-monthly by The Pennsylvania Department of Health, Harris-
Pa. This Journal is free to the people of Pennsylvania. A request to
Editor, Department of Health, Harrisburg, Pennsylvania, will bring a
of this magazine to your home without charge.

Editorial

MEDICINE MARCHES ON—DO YOU?

HOWEVER much the progress of medicine owes to the past, the achievements in the last quarter century have been amazing both in quantity and in their ability to combat the foes of the flesh. Workers in hospitals and laboratories literally have advanced a thousand scientific frontiers.

Insulin for the treatment of diabetes, liver as a remedy for pernicious anemia, cortin as a potent enemy against Addison's disease, healing gases, vitamines, and new drugs are but a few examples of the barriers against disease and premature death that have been successfully, and in many instances, spectacularly raised.

Indeed, it truthfully can be said that the modern agents for the alleviation and cure of disease plus the mass control over water, milk, sewage disposal and communicable maladies represent an armor the invulnerability of which was not even imagined fifty years ago.

But while medicine has marched magnificently on, what about man?

True, in most fields of endeavor he has given a splendid account of himself. The radio, the airplane, the automobile, the submarine, the skyscraper and all the rest of the machines and factors that have formulated present-day civilization, eloquently attest to his resourceful and unconquerably advancing spirit. And so, externally at least, he has been an amazing success.

Unfortunately, however, the study of man by man himself lamentably lags. Eliminating the research and professional men, the science of life and disease prevention has thus far failed to capture the general imagination. Thus, one finds not even a year added to the average life of the individual of forty-five or older.

Thanks to man's supreme indifference to himself, the present master killers such as heart ailments, diabetes, cancer and nephritis carry on their lethal work comparatively unhindered by scientific progress. They are beyond the pale. No health officer can control them. Laws are equally impotent. They thrive on the complete disregard of the individual to a real interest in his physical welfare.

Therefore, until the average individual realizes that the main business in life is to live, and governs himself accordingly, the enormous dividends that Scientific Progress has made it possible to pay will not be declared—a fortune in health, happiness and longevity frozen by man's unreasonable lack of reasonable concern for himself.

And so, quite logically the pertinent and personal question: Medicine Marches On—Do You?

J. C. F.

SOME FUNDAMENTAL RELATIONSHIPS BETWEEN MEDICINE AND EDUCATION*

A. W. Thompson, M. A.

Director of Health and Physical Education
Grand Rapids, Michigan

IT MAY be well for us to take a long-time view of some of the trends and changes which are apparent in the field of education and of medi- ine. Basically, public education is a cooperative enterprise on the part f communities to provide a broader, finer and more productive series f experiences for boys and girls than any one home can provide. The urpose is the greatest possible development of the individual physically, entally, and socially.

Beginnings of Education

Originally education of youth was carried on in the home by the mem- ers of the family. It was one of the prime responsibilities of the family oup. Gradually slaves or hired tutors who were supported by the mily came to take over many of these duties. Then groups of tutors, id by a number of families, presented information and trained the child directions formerly guided entirely within the family. This type of lucation was really "private" and was offered to a very limited number boys and to the feminine sex practically not at all. The sixteenth cen- ry marked the beginning of the development of education for boys and ris, men and women, and for all classes rather than for a select group om privileged families.

With the eighteenth century there is a transition from private main- nance to public support. The old idea that education at public expense s an evidence of pauperism began to fade. In its stead there gradually veloped our present great system of public education which is now car- d on in all urban communities at least through the high school. In ny others it also extends through two years of junior college; and in ne, through four years of university training with the possibility of duate work after that period. Thus, today, we see large state-sup- ted universities, grants of millions of dollars being made by the State strong semi-private institutions, night schools, senior and junior high ools, elementary and nursery schools. There is also a strong urge, em- sized by the current depression, toward the development of adult edu- ion opportunities. Also with the growth of public education, there has n an extension of opportunities of education in the higher levels of the fession.

Interest in Physical Education

While these changes have been developing in the educational field there e been differences noted in the attitude toward the physical welfare of school child. For instance, among the Greeks there was a strong em- sis on physical condition. In the asceticism of the Dark Ages there a revulsion against any attention to or regard for the physical, a

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ress delivered before the tenth annual meeting of the Pennsylvania Public Health Association.

viewpoint which negated completely the physical hardihood of the Greeks and the earlier Romans. The later "chivalric period" put some premium on physical abilities but largely inculcated in the minds of the youth of the day the courtesies and niceties of court society. It may be said to have been a mid-way point between asceticism and the later health and physical education program of the English public schools and the present American education system.

The medical world itself has also developed new and broader viewpoints. Throughout the ages medicine has built up a history of steady development both in knowledge and in techniques. It has altered its conception of its basic purpose and approach to the public, and particularly in the field of public health. It has passed through three stages, the first being that of emergency service of "care and cure," with particular attention to epidemics. Its second type of thinking was characterized by the desire to prevent rather than merely to cure. The third and present stage is that in which medicine is seeking by all possible means to educate the public both young and old in ways of healthful living. Care, cure and prevention of course are fundamental in this program but are being woven more closely into the whole educational program than ever before ......

Four levels of effectiveness in the field of school health education are possible. On the lowest level we *talk about* health matters; that is, offer class or text book instruction in matters of health such as food, sleep, rest, cleanliness, clothing and mental hygiene. On the next higher level these matters are discussed in class but the pupils are also given an opportunity to experience health services. Among these are periodic examinations, corrections of defects, dietary aid, psychiatric attention, proper environment, nursing care and rest periods. On the third level we utilize class discussion: provide health services; and actually give pupils the opportunity to *live healthfully during the school day*. The milllenium is probably the fourth level of effectiveness when pupils will go into homes and communities where they will find it easy to practice health teachings.

Present Developments

Education and medicine today are cooperating in the preparation of teachers and administrators for service in the field of school health. And our medical schools and staffs in institutions of higher learning protect, improve, and maintain student health. In addition, they are developing the program for prospective teachers and administrators in health instruction, health service, and "healthful living during the school day" as an essential factor of the public school system.

Another evidence of the cooperation between school and medicine is the interest which State Departments of Health are evincing in the organization of county health units and the emphasis which they are putting on the necessity of cooperation with city, village, and rural schools.

Again, philanthropic organizations are often predominately medical in their personnel and are aiding in increasing the health service facilities in many communities. Particularly through the schools such organizations as the American Child Health Asssociation, The Children's Fund of Michigan, The National Tuberculosis Society, The Rockefeller Foundation, The Macey Foundation and The W. K. Kellogg Foundation in

lichigan, are reaching the adult public and the oncoming generation. he effect of their work is also noticeable in the parochial schools of e country.

The Interest Spreads

Moreover, industrial organizations are now checking on and protecting e health of their workers. They are not content to know what is going in the factory alone but are observing home and community conditions well. Insurance companies are emphasizing health knowledge, attitudes, actices, and the care of both young and old alike. Food factories and iries are continually keeping health factors before the people, particurly on the "essentials" in which they are seriously interested. The staffs all these public-contact agencies are strong in medical personnel. The ckground of their work and the public acceptance of their teaching are sed almost entirely on the prestige of the medical world. It is evident at to a considerable extent the trend of thinking and of organization of hool and public health activity is being woven in the schools, colleges, d universities of the country and that the basic opportunity for influence d training lies in the hands of the medical fraternity.

In this program of school and public education, the members of the ucational staffs of our cities must realize their own limitations in the ld of medical knowledge and procedures. They must learn to cooperate nstantly with the medical group in the application of that information school situations. Medicine is constantly adding knowledge and exding traditional theories, some of which have been taught in the schools r years. It must provide the schools with recent and accurate material r health instruction. It also might be well for the medical profession know how better to weave educational principles and procedures into basic training of its representatives. The same may be said of dentists, chiatrists, nutritionists and nurses. All this, in order that these groups ght be able to present in simple, non-scientific language the present comratively involved information that is now being given to superintendents l teachers. Similarly, it will be well for the classroom teacher to have nore basic education in the sciences than she has had heretofore. The dens of health instruction particularly in the elementary grades will l upon her.

The dissemination of medical knowledge will be aided by the adoption certain principles and procedures which general education has found be of value. Health services are fine in themselves but should be ornized so as to become an important educational experience as well as a dical one. The school health examination, for instance, may be so ornized educationally to make it understood and appreciated by the pupil l to lead directly to the development of the habit of periodic examinas in later adult life.

Adults in many of our homes are being changed and new culture pats formed by the training, the desires and the interests of the children carry into the homes the experiences of the school day. This is true nedicine as well as in education. Schools are a rapid and consistent ns of approach to the family circle. The medical man has a far reach influence through the molding of the present and future school ups. Indeed, the conception of personal health gained in school will

considerably determine the type of medical service which these youngsters will ultimately require as mother, father, or even as a member of the city-governing group.

Increased Cooperative Interest Necessary

Education and medicine are both based on the theory of service to persons of varying physical abilities, physical condition, mental capacity, social understanding and economic levels. Each will be aided by an understanding of the problems of the other. The schools must treat the child as a whole—with his physical condition related definitely to his mental and emotional capacities. Medical schools and the health and public health staffs have the opportunity of setting the patterns and pointing out the possibilities of medical-educational cooperation. There is no misunderstanding so valid that it can not largely be erased by a mutual appreciation of aims, problems, or procedures. That these misunderstandings do exist at the present time is admitted by all. The educational world has been responsible for some of them in appearing to set up its own program without due regard to the priority of service and the preponderance of training of the medical world. On the other hand, members of the medical profession have, at times, been slow to realize the basic similarities in private and public medical practice and in public education. It is hoped that these divergent lines of thinking will gradually disappear as we view the common goals and present trends of education and of medicine.

The needs of children and the demands of an advancing civilization are such that education and medicine, possessing this sympathy of understanding and utilizing procedures educationally sound, can work hand in hand to achieve an even finer type of living for our present and future citizenry.

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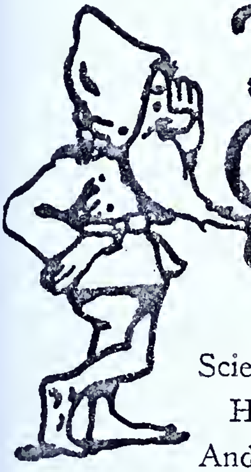


The Health Gnome Says—

Science and invention
  Have reached great heights these days;
And man is bulwarked from disease,
  In a thousand different ways.

His milk supply and drinking water
  Are now quite well protected;
And many of the great diseases
  To defeat have been subjected.

New drugs, new serums, and vitamines,
  (To mention only some)
Have vastly aided Health officials,
  To get diseases on the run.

But Public Health, with its mass control,
  Can only go half way;
Unfortunately for indifferent man,
  He, too, has much to say.

And he, in utter disregard,
  Turns his back on bubbling health;
By disbelieving the solid fact that—
  God helps him who helps himself!

J. C. F.

PONCE DE LEON'S FOUNTAIN

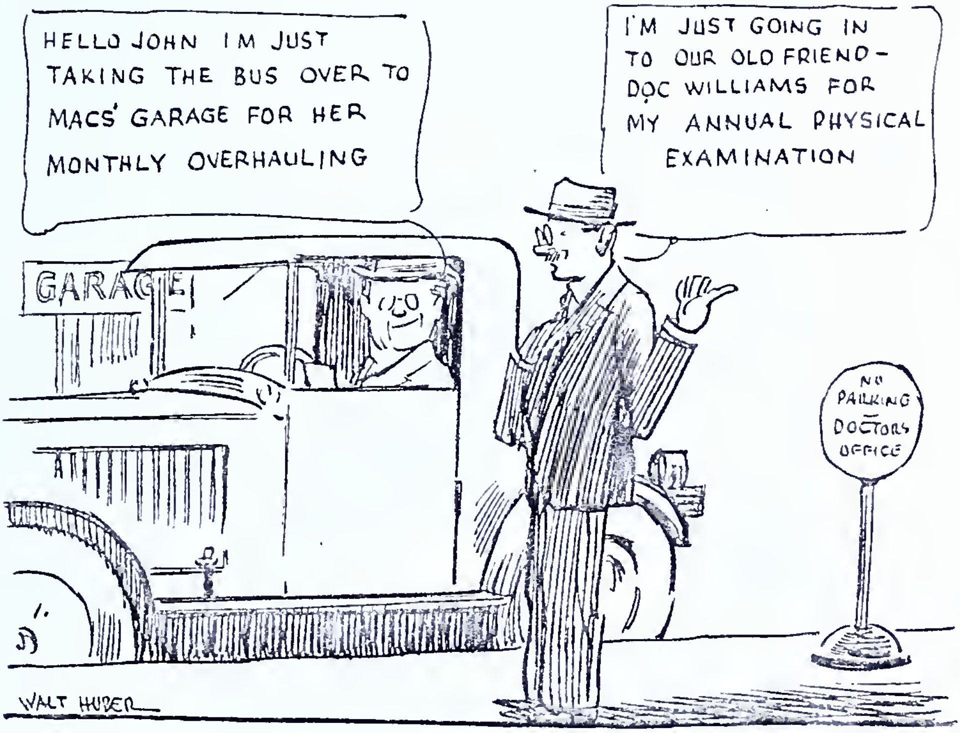
J. Clarence Funk, Sc.D.

Chief, Health Education Division

A FEW months ago two highly successful business men were on a Florida golf course. Both of them were over fifty. In the American manner they "had come South," as one of them smilingly admitted, "to regain our youth." Thus, figuratively, they were on a quest for Ponce de Leon's Fountain.

And, while undoubtedly they were getting more outdoor exercise than the sedentary routine of harassing businesses permitted them at home, it is highly questionable whether their luxury method of recapturing youth was more than an extremely temporary affair, if not a complete failure.

Living habits, which involved all the enervations of the present, had so unalterably attached themselves to them that these gentlemen were morassed. Habitually late hours, an undue affection for inhaled tobacco, and an utter disregard for gastronomical needs and limitations thus tenaciously stuck to them. To expect eighteen holes of golf daily over a period of two weeks plus a sun tan to displace the cumulative effects of such a regimen was asking much indeed.


HELLO JOHN I'M JUST TAKING THE BUS OVER TO MACS' GARAGE FOR HER MONTHLY OVERHAULING
I'M JUST GOING IN TO OUR OLD FRIEND - DOC WILLIAMS FOR MY ANNUAL PHYSICAL EXAMINATION
GARAGE
NO PARKING DOCTORS OFFICE
WALT HUBER

One of the Major Long-Life Secrets for Both Car and Man

The adult American attitude, however, is strangely and pathetically in line with this type of psychology. And for this the public is not much to blame. The magazines, the billboards, the radio and one's enthusiastic friends forever are suggesting in persuasive terms the great ease with

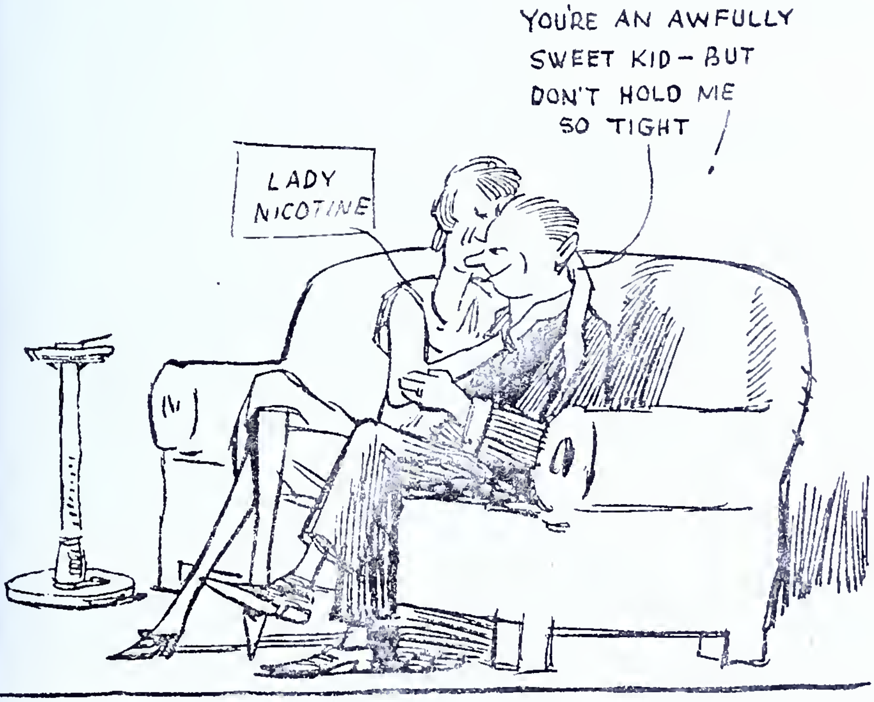
which it is possible to hold on to youth and its trilogy vim, vigor and vitalty. Thus middle-aged America is seduced by the belief that a bit of money exchanged for a bottle of this or that, or for an unaccustomed mixture of foods, or for a certain printed set of physical exercises will painlessly renew a breaking body.

Moreover, one is likely to be convinced that with this academically acuired energy maintained by a conversational ability on these subjects, one will after a fashion have successfully located the Fountain of Perpetual Youth.

Now the only trouble with this system is that nature does not work hat way. As there is no royal road to wealth, neither is there any royal oad to health. It is not what one *buys* that attains and maintains health, ut what one *does*. Unapplied health information is impotent.

Therefore, while there is no such thing as synthetic vitality, this fixed dea so controls today's situation that a major crisis among adult America xists, howsoever non-spectacular it may be.

Consider diversions, for example. While not desiring to assume a uritanical attitude, it cannot be denied that the cocktail has more than come into its own again. Eliminating the increasing as well as the irraonal indulgence on the part of youth, many of the middle-aged and older re going in for this sort of thing with an enthusiasm quite beyond the enefits to be received.


YOU'RE AN AWFULLY SWEET KID – BUT DON'T HOLD ME SO TIGHT!
LADY NICOTINE

This Man Has the Right Idea

The other night, for instance, *after* a very inspiring travel lecture, a oup in their early fifties congregated at the home of a mutual friend. hese intelligensia immediately began "to make whoopee," consuming uch liquor and losing much sleep in the process. No one will deny that

temporarily at least they had lost the Ponce de Leon trail. These sportive individuals who are more or less making a practice of this gentle alcoholic art apparently will not admit that, even though alcohol has attained a respectability undreamed of in the mauve decade, its majestic altitude does not diminish in the least its age-producing consequences.

It is well known to everyone that alcohol habitually taken in quantities degenerates the heart muscles and also produces arterio-sclerosis. The bad effects of spirits on the kidneys and liver are also clearly appreciated. Books on clinical medicine, pathological anatomy, as well as the high school physiologies pointedly prove these facts. And assuredly none of these effects are conducive to prolonging youth or even to maintaining a robust constitution.

Again, consider the tobacco habit. One not only sees middle-aged men but middle-aged women habitually seeking a pick-up by way of the inhaled cigarette. The avidity with which this solacing factor has been courted by oldsters is but another instance of a misguided enthusiasm.

In their inexperience, and hypnotized by press-agent arguments and artistry, one would rather expect younger people to regard Lady Nicotine over affectionately. But intelligent mothers and fathers, one would suspect, should be less gullible and certainly more moderate than many thousands of them are today. After all, tobacco *is* tobacco.

Whatever attractions excessively inhaled smoke may possess, and howsoever socially accepted the practice may be, the fact remains that lungs were not built for this sort of punishment, neither was the heart nor any other part of the physiological set-up.

A very popular health writer, who certainly is no fanatic where orthodox health preachments are concerned, has this to say in this connection: "In some cases there appears to be a definite connection between excessive inhaling of tobacco smoke and angina pectoris." Now angina pectoris is a too common form of heart disease. And while its causes are many, to add to its possible development by over-indulgence in the weed certainly is not following compass directions to the Fountain of Youth.

Moreover, specialists have frankly admitted that a definite rise in heart ailments and fatalities among the cigarette-inhaling women group is already being indicated. And this, with the crop far from being ripe!

On the face of it, therefore, it would seem that not only youth but life itself were being embarrassed by an overfondness for inhaled tobacco. Ponce de Leon's Fountain does not therefore seem to lie in that direction either.

And the same can be said for that large and ever-growing population of middle-aged and aging folk who look upon repose merely as a last resort. To these pseudo sophisticates the need for rest is invariably shunted into second place by the desire for recreation and excitement.

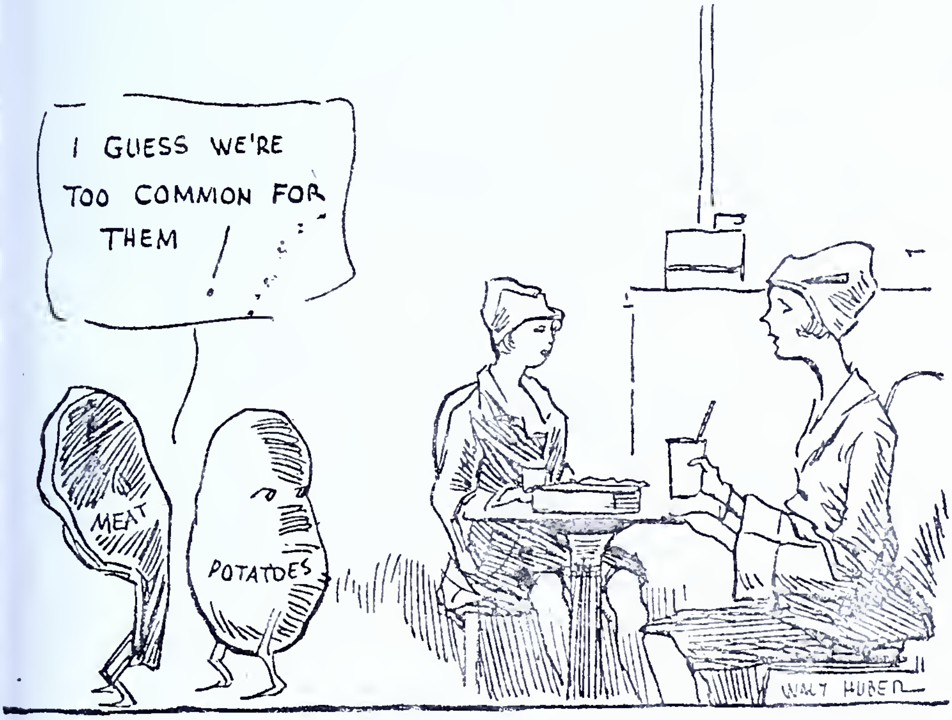
"I'm half dead, doctor," exclaimed a steel executive to his physician a few weeks ago. The physician soon discovered that it was not work and worry that had got his patient into this predicament, but a desire to keep up with the fast night-life pace set by his pleasure-seeking wife who, by the way did not have to catch the early morning train into the city.

The medico counselled this manufacturer to give his body a chance to get the rest it so urgently demanded. However, what this otherwise

ntelligent man really wanted was pills; not receiving them, he continued is sleep-robbing practices. Consequently for the time being at least he is nervous wreck. Certainly he, too, is off the Ponce de Leon trail.

An extreme case, no doubt. But it perhaps might be a very proper nd profitable thing for the adult no longer young to check up on his eep habits. Nature is imperious where sleep is concerned. Those who onsistently and continually snub her in this regard are bound to lose e road to the Fountain of Youth.

However, for the majority of middle-aged and older persons food is e siren most likely to dash to pieces the hope for prolonged youthfulness. It takes superlative will power, 'tis true, to be blind to this fasinating killer. And killer is exactly the right term in this connection. ood, of course, is life; but an habitually excessive intake on the part of fty-year adults and older, speaking in averages, definitely shortens it. he family physician and the dietitian well know that an habitual superbundant food intake and the over-use of certain types of food are actual llies of devastating diseases and of death itself.


I GUESS WE'RE TOO COMMON FOR THEM !
MEAT
POTATOES
WALT HUBER

Luxury Foods at the Wrong Time Lead Off the Long-Life Trail

Thus, consistently to over-eat, however painless and palatable the rocess may be, is by no means following in Ponce de Leon's steps. uite the contrary. A short cut is thus being taken to the cemetery. nd, as everyone knows, it is the last place on earth to find lively youth.

Another major detour is lack of exercise. One of course does not eed to develop the muscles of a professional strong man to keep on the alkaline side" of this requirement. In fact, there is no proof that a ulging musculature and prolonged youth are synonymous. The con-

trary seems rather to be the case. And by the same token health officials do not insist that setting-up exercises unmistakably point the way to a vigorous old age. Particularly is this the case where violent exercises are regularly indulged in without professional sanction or advice.

However, even though one be just naturally averse to exercise formalities, there still remains that great sport invented back in the Eden days known as walking.

One of the most prolific authors in America today recently replied to my outspoken enthusiasm for his vitality and youthful appearance thus, "Moderation in all things except work, plus a two mile walk rain or shine, have counted for much. As I shall be dead a long, long time, being half-dead while I'm alive has never appealed to me." What words of wisdom!

Medical science today represents amazing safeguards. And never before as there are today have there been so many heads working in research laboratories all over the world to defeat disease and prolong life.

The sad fact is that, with all of this spectacular success and stupendous activity, Mr. Average Adult Man and Mrs. Average Adult Woman, wishing more than anything else in the world to prolong youth and vitality as long as possible, talk very much on the subject and do little else about it.

Ponce de Leon didn't reach the Fountain of Perpetual Youth, but he at least made a magnificent attempt to find it. His example could, with profit, in many added years of vigor and vitality, be emulated by most of us who just travel along and crustily grow old or prematurely die young.

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A MUNICIPAL MILK CONTROL PROGRAM*

Oscar Tischer

Dairy Inspector, Wilkes-Barre, Pennsylvania

MILK has been called the most nearly perfect food, and rightly so, because it contains more nutritive elements, and these in better proportions than does any other food. In addition, it is nature's only balanced product that requires no preparation prior to consumption other than safeguarding its purity and cleanliness.

Milk, because of its generally recognized value as a food, and because of its extensive use in our daily diet, must be carefully scrutinized by constant inspection and be of guaranteed safety.

Among the essential components of milk we seldom see mentioned its bacterial content. All milks contain bacteria, and practically all types of micro-organisms thrive more or less abundantly in this medium. Therefore, it is incumbent on municipal health authorities through the agency of milk control personnel to guard the milk supplies carefully, so that pathogenic and other harmful types of micro-organisms are totally absent, or if present, rendered innocuous.

Carefully guarded as are our water supplies which nature so generously provides from hundreds of springs, wells and rivulets, much is done to insure their ultimate safety. Water sheds, water courses, and eservoirs are zealously protected against pollution and contamination. As a final added precaution in our great water-works systems, aeration, iltration and chlorination are resorted to, in order further to insure a ealthful water supply, free from disease-bearing germs. Yet how much nore care should we exercise in guarding our milk supplies which spring rom thousands of sources and are subject to possible contamination from undreds of thousands of agencies? The law rightly forbids the addiion of preservatives or germicides to milk. Therefore, it is the solemn bligation of Boards of Health to use every means within their power o control the milk supply from its source to the ultimate consumer.

Municipal milk control must combat the human element, economic tringencies, natural phenomena, and other circumstances too numerous o mention. Consequently the task is one of education and helpfulness to he producing farmer and to the consuming public. The culmination of ur desires is reached only in the cooperation of all the influences that are nvolved in the production, distribution and supervision of the milk upply..

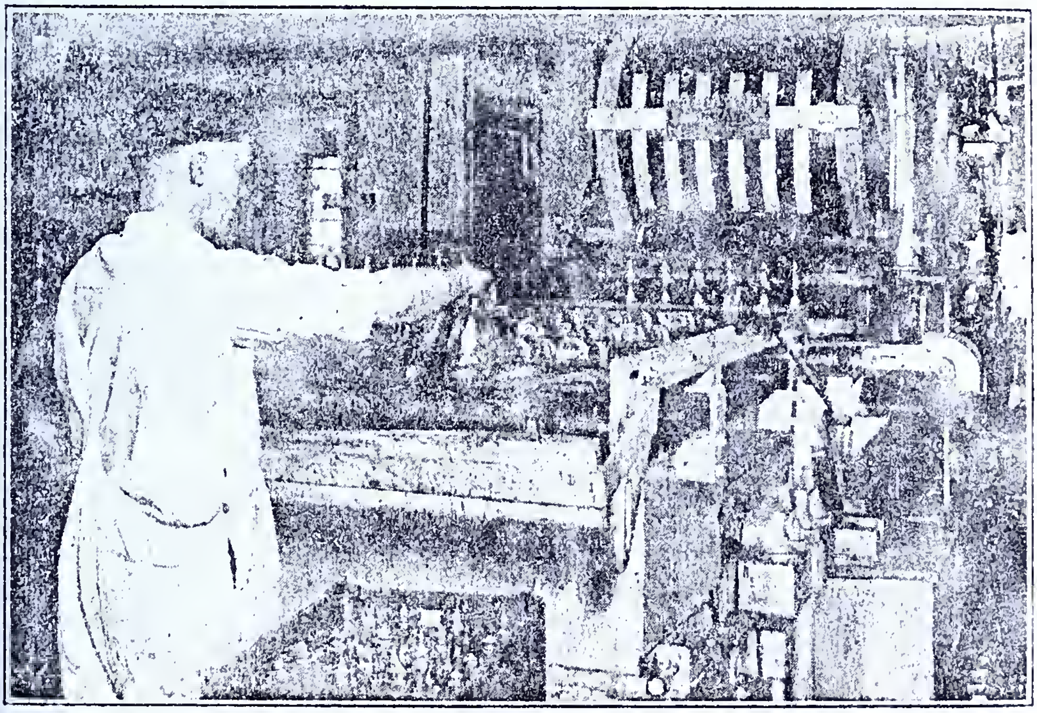
On the dairy farm the milk control authorities must ascertain primrily the health of the dairy herd, the physical condition of the milk andlers, the freedom from contamination of surroundings, and the safety f water supplies.

To aid the producer in making marketable milk of rich quality and lentious quantity, numerous agencies, state, county, municipal, and comercial have been established. All these have proved to be of inestimable id in indicating to the farmer the best balanced feed rations for producon of high test milk, the most effective plans of cooperative marketing; nd lastly, through intensive inspection systems of state, municipal and ommercial agencies, knowledge and assistance in methods whereby milk w in bacterial count is produced.

Address delivered at the annual meeting of the Pennsylvania Public Health Association.

Inspection sheets, called "Farm Scores" are filled out in duplicate or triplicate on the premises. Defects are noted, the farmer is notified, and a copy of the form is posted inside the milk-house. Commercial inspectors, (approved inspectors who hold state certificates to make farm inspections, but are privately paid), file reports of their findings at the dairy plants, or with the municipal control officer. A careful scrutiny of these reports points where special work must be done by the local officer to remedy defects at production sources.

Receiving stations are locations or milk plants where cans of milk are received and cooled and prepared for transportation to processing dairy plants. At the receiving station, milk from individual producers is weighed, sampled and tested. This is a most important link in the preparation of market milk. Frequent municipal inspections are made in and about the premises, and samples of milk for sediment (cleanliness) tests and laboratory analysis are periodically gathered. Bulk shipments are made to processing plants from this source in insulated thermos tanks or in cans.



Milk Is Protected All along the Line

Pasteurization or processing plants are premises in which milk is received and subjected to the process of pasteurization and bottling for distribution to the consuming public. The most extensively used system of pasteurization in America is the holding system. By the holding method, every particle of milk is heated to 143 degrees, Fahrenheit. It is held at this temperature for not less than one half hour, and promptly cooled to a temperature of 45 degrees, F. or lower, then bottled and capped in such a manner as to prevent contamination. Most modern forms of heat treatment base their origin upon the early teaching that

ilk may be rendered safe by rapidly heating to a high temperature fol-
wed by immediate cooling. Theoretically this is correct. And the
cent invention of electric controls to regulate the flow and temperature
: milk through a processing system has made this theory a practical
orking actuality.

Milk, in a flash apparatus is rapidly heated to between 160 and 164
:grees, F. and promptly cooled to 45 degrees F. or lower. Of the
ırious flash systems used, the procedure is to pump milk through a
:ating unit, using electricity or steam as the heating medium. A ther-
ostatic arrangement in a control board operates the pump which auto-
atically regulates the flow of milk. I know that you will be surprised
hen I state that in all flash systems so far observed in operation, ef-
:ctively safe milk is processed within fifteen seconds, the slowest ap-
ıratus studied has a flow of about 1000 pounds in three minutes.

The heart of milk control work is the laboratory. Samples of milk,
ilk products, water, and bodily discharges of handlers are periodically
ıalyzed here. Bacterial analyses, microscopic examinations and butter
ıt determinations of milk are made almost daily, and the results of such
ıaminations are carefully noted. Failure of milk to conform with
andards means the elimination of this supply from local markets.

A well regulated and systematic program of municipal milk control
nbraces the following essential forces: Municipal officials and Boards
f Health recognizing the value of safe milk and its relationship to public
:alth; cooperation between state, municipal and commercial inspectors.

The Wilkes-Barre municipal program is one of intimate and whole-
:arted cooperation with commercial and state control agencies. It is our
m to inspect every farm producing raw milk for pasteurization in this
ty at least once each year, regardless of apparent satisfactory conditions.
he local pasteurization plants have farm inspections made either by their
wn "approved inspectors" or by other commercial inspectors. These
ıspectors file in the office of the plant a detailed report of conditions
: found by them at the various farms. These inspection sheets are
ırefully scrutinized by the municipal inspector. In the event of an
parent faulty producer, or of a producer who is backward in meeting
ıe municipal requirements, an immediate municipal inspection is made.
f it is found that the farmer is at fault, the inspector indicates the neces-
ıry recommendations for changes and makes a re-inspection after such
time as he deems necessary for the faults to have been corrected. If
ıe faults have not been eliminated, the producer is excluded from further
ıipment of milk for consumption in this municipality until the require-
ıents are fully met. Milk samples are taken both by the dairies and by
ıe municipal inspector. The results of analyses of these samples are
:udied by the municipal inspector. In the event of a high bacterial
ount or of a poor sediment test, the farm is immediately inspected and
ıe same procedure is invoked.

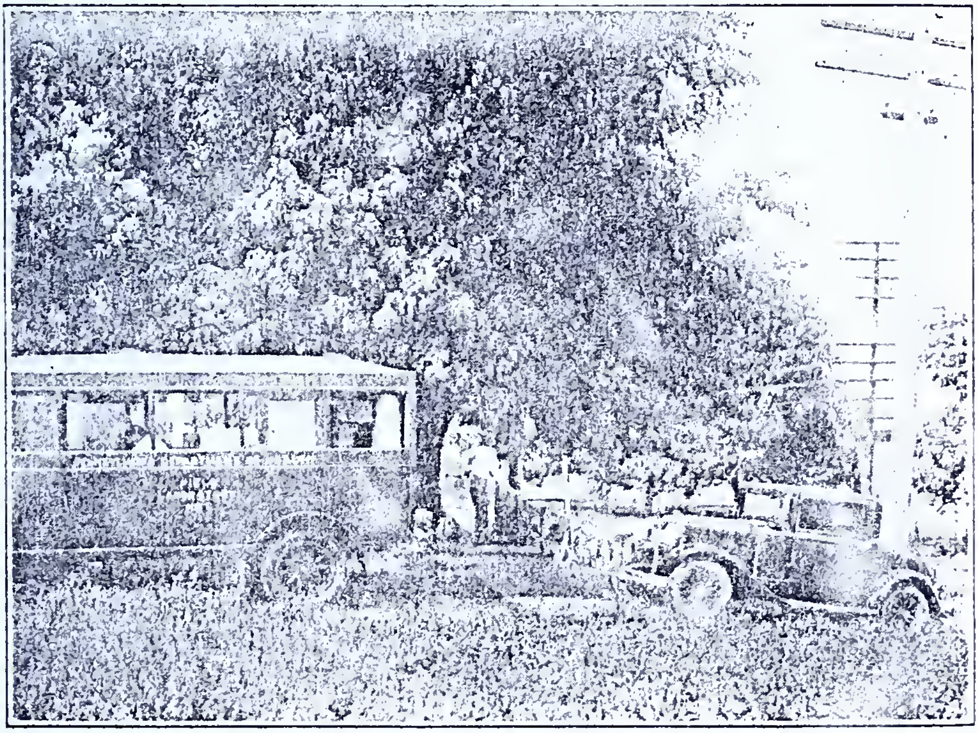
In view of this cooperative program, the municipal inspector is in
ıtimate touch with the conditions of each farm at all times, and with
ıe specific type of milk each farm produces practically every day, even
ıough he ordinarily will make but one physical inspection in each year.

Such a program cannot help but tend toward the maintenance of well
:gulated and efficient processing plants and sources of supply operated

by clean farmers. Our processing plants may no longer be placed in the same category as mere laundries. We have converted them into scrupulously clean establishments which receive a clean, healthful milk supply strictly supervised at its source and safeguarded up to the consumers table.

However, we must have even further cooperation. A municipal milk control program must have and must hold public faith, and it must be reinforced by an inclusive and sane ordinance—one that is enforceable; one that insures a safe, clean, raw milk for pasteurization.

In summarizing, let us again consider the source of water. It is given to us by nature in absolute purity. In cities we receive it directly from hundreds of sources. In order to protect our health against possible contamination from the source of supply to the faucet, innumerable precautions are taken and countless dollars are spent.



Protecting the Water Supplies

The original springs are kept under constant surveillance; watersheds and water sources are carefully supervised; reservoirs are zealously guarded. Even after all these precautions against contamination have been taken, we resort to filtration, aëration, and chlorination, further to insure the safety of the supply.

In the case of milk, we receive it indirectly from hundreds of thousands of sources. In order to insure a healthful supply, we are dependent upon the health of the cattle from which it comes, upon the health of the milker, on the cleanliness of the utensils, the proper handling, speedy delivery to processing plants, correct and complete pasteurization, care in bottling and delivery to the final consumer.

Municipal milk control officers are the protectors of public health. hey are the public's guarantors of a clean, a wholesome, and a health-ul milk supply. For while milk is an essential food—in fact, the most early perfect food—it is also a most dangerous one unless its production properly supervised and controlled. It is the only food delivered for ltimate consumption whose faults the consumer is helpless either to de-ect or to correct. In the case of meats, vegetables, or any other of the taples, the consumer is reasonably able to detect a deficiency and is in a osition himself to cleanse any food whose cleanliness he doubts. He can vash meat, fish, vegetables and fruits, but he cannot wash milk. It must e taken as a matter of faith. That faith is not in the cow and not in the airy but in the municipal control officer who assures a pure, a clean, and healthful milk supply.

◆

FLY—FLY, AWAY!

A. J. Bohl

Treasurer, Pennsylvania Public Health Association

JUST a day or so ago, quite idly, I picked up an engineers' handbook in which detailed instructions in the use of drawing instruments were given. In it the statement was made that flies in drafting rooms should be suppressed because a fly will eat up a line of India ink as fast as it is laid down. That's a queer thing, isn't it, that even in a drafting room flies are creatures to be avoided and destroyed! Well, that's just one more count against the house-fly, the "Musca Domestica" of the entomologists, and one of the worst nuisances on earth to the rest of us.

If he were just simply a nuisance, that in itself would be reason enough for his destruction, but beside that fact, we can set down the statement that he is a most efficient disease disseminator.

This is not conjecture or idle statement, nor is it something new and "faddy." So far back as the sixteenth century references were made in medical literature to the probable relationship between flies and disease. But in 1898, during the Spanish-American War, came the perfect evidence against this filthy insect. In military camps, during the war, about one-fifth of the American Army personnel contracted typhoid fever. Everything possible was done, of course, to discover the source of the disease, and a board of military officers was appointed to investigate. In the actual words of this board, "These pests (flies) inflicted greater loss upon the American soldiers than the arms of Spain." How's that for evidence?

Physicians and sanitary officers everywhere realize these facts, and to the best of their ability strive to combat the fly menace. However, they need the public back of them. There isn't much use in trying to fight the living, buzzing fly himself. That's like locking the stable door after the horse is stolen. And, while we're on the subject of horse, let's make mention of the fact that he is one of the primary causes of flies; for stable manure is this insect's favorite breeding place.

Flies are egg-laying creatures, and fresh warm stable manure provides the best possible medium for the hatching of these eggs. The female fly will deposit something like 150 eggs at a time, and will repeat this procedure four or five times during her life. These eggs are small, white ovals, about one twenty-fifth of an inch in length which hatch out in about ten days. Two weeks later these second generation flies will be depositing eggs. An so on, *ad infinitum.* Thus it is quite conceivable that one female fly may be the ancestress of innumerable flies. Calculations on this subject have been made, and while I do not know how many flies are involved, it has been shown that this single ancestress could be responsible for a solid 250,000 cubic feet of flies in a single summer, if every fly lived. Thank Heavens they don't!

While stable manure is the chief breeding place of the fly, yet many other substances have been found to permit breeding. Decaying vegetable and animal matter, foul garbage cans, human excrement, cesspools, chicken coops, cow stables, pig sties, have all been found to be excellent hosts to the fly and her progeny.

In short, all the fly requires is some kind of decaying animal or
getable matter, at the proper temperature, and with a favorable moist-
e content. Given these, one pair of flies will provide more flying nuis-
nces than a thousand men can swat.

A Typical Fly-Breeding Spot

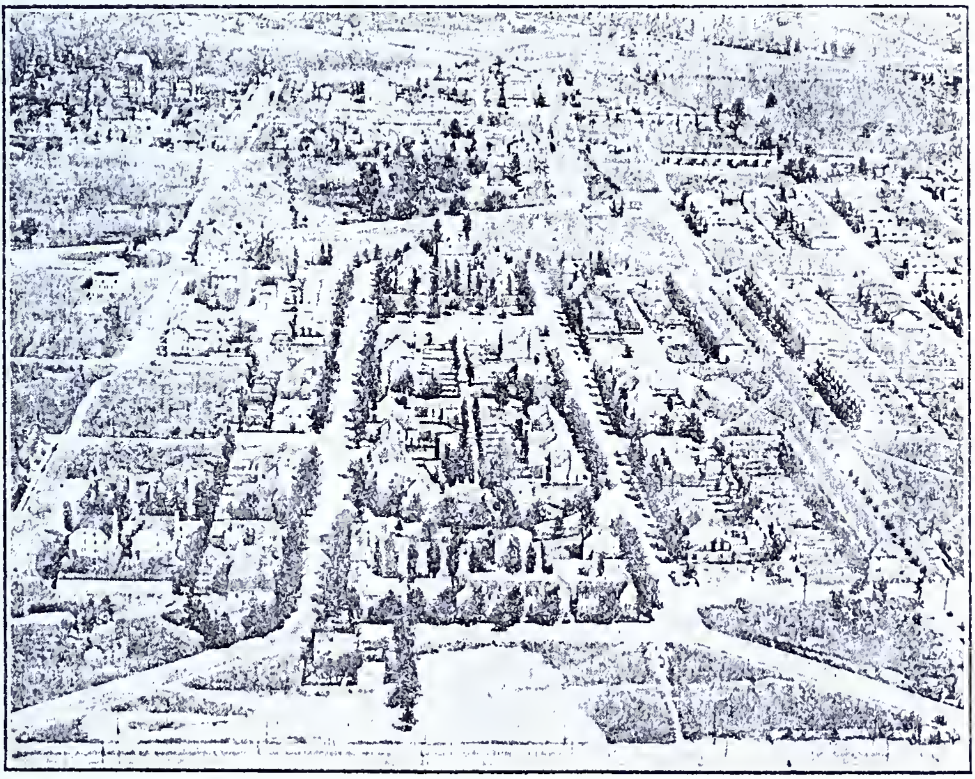
Flies normally are hot weather insects. They start breeding in June
nd continue until some time in October when, with the advent of cool
eather, the summer life cycle is past and they die, some of old age and
hers killed by a parasitic fungus which infests them. Unfortunately,
owever, they do not all die. Some of them hibernate. They find a
evice in the woodwork of the house, and there they lie in a state of
uspended animation until spring.

Let's suppose that at the beginning of spring, when our fly comes
ut of her long nap, there were absolutely no possible breeding places,
o accumulations of warm, moist, decaying matter to receive her eggs.
hat would happen? Well, that would be the end of things temporal
or the race of Musca. It doesn't seem to me that such an ideal condition
f cleanliness and sanitation will ever be reached, but—and here's some-
hing to think about—of two places in the same temperature belt, the one
ith the least number of filthy, insanitary, fly-breeding accumulations
ill have the least number of flies. That's an axiom, believe it or not;
nd local city and health authorities, civic betterment associations, and
he like, might paste it in their hats.

I can remember, not very far back, but far enough, to the time when
ies were just nuisances. Nobody liked them, and small boys were
everely disciplined for their heathenish practice of pulling off wings.
ome people had wire screened doors and windows, but they were, some-
ow, rather high-hat. Grocers sold fly paper, sheets of brown paper
overed with a sticky, smelly substance, into which cats walked, and
pon which mother sometimes inadvertently placed her hat or purse.
hese mishaps were very comical, naturally, and produced mighty out-
reaks of laughter.

Back in those days, if a fly fell into the milk he was fished out to the accompaniment of cross words, but the milk was saved and consumed. Flies crawled on the table, over the food, but they were shoved away and the food was eaten. At my home we had a gadget operated by clockwork in its base, by which a pair of black muslin covered wings were swiftly rotated over the table. It worked, too, for flies do not like breezes. Some people had swatters, home made ones, but in general people tolerated flies, and scrupled not to consume food on which they had walked.

We did not know then, or maybe we just ignored the fact, that these flies who so gaily nibbled at our food, who crashed the gate at our feasts, had been hatched in, and had very recently left, the most disgusting, unclean and insanitary appurtenances of our homes. They had just waded through matter into which we would not willingly have touched, matter which we would avoid, matter which we would not even approach—to walk on our food, to partake of it, and to contaminate it.



Flies Are Hard to Find Here

Our neighbor might have typhoid, and flies might have left his house to feast at ours—and infect our food.

If you'll cast your memory back to about 1905 or 1906, you may recall that we, here in Pennsylvania, had typhoid fever, and plenty of it. In 1906 there were reported 24,471 typhoid cases, and 3,917 died from its effects.

Babies used to have "summer complaint," that is, more babies had it. It still exists, and we must admit it.

I would not presume to say that all the typhoid and all the summer omplaint and infant diarrhoea was caused by flies. I have too many riends in the sanitary engineering profession for that (you know, the anitary engineers claim that they are responsible for the decrease of ıtestinal diseases). But, I'll stick to it that flies were responsible for a retty large percentage of cases.

And after that, it's just plain logic. Typhoid and diarrhoea are ummer diseases. Flies are summer insects. When winter comes, both ecrease. And during the past thirty years both flies and these diseases ave decreased. Well, anyhow, it's good circumstantial evidence, and eople have been hanged on that.

And now, what's to be done about it? Cities and boroughs can reuire that fly-breeding places be eliminated. There aren't so many orses, and nobody needs to keep cows or chickens anywhere in a muniipality. Garbage cans can be kept clean, and garbage dumps treated. 'his is a serious matter. It's better, far better, for a town properly to ıke care of its sewage and garbage and other wastes than for it to have ıiles of paved streets and acres of pretty parks, all buzzing with flies.

Individually, every household can screen its doors and windows, and eep its premises clean, can take proper care of its garbage, bury or urn it, or see that it is disposed of in an effective manner. And one ıore thing it can do. It can SWAT THAT FLY!

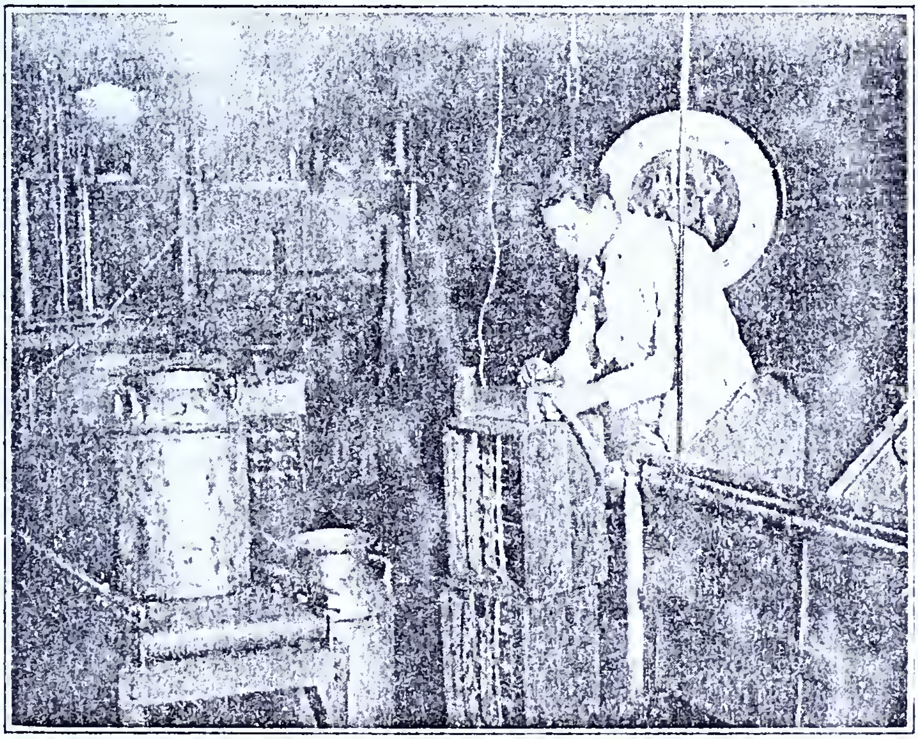
⁂

DEPARTMENT NEWS

A NEW LOW FOR TYPHOID—Secretary of Health Dr. Edith MacBride-Dexter recently announced that the typhoid fever death rate in Pennsylvania during 1934 was the lowest ever recorded in the Department's history. To date there have been less than 100 deaths, as compared with the previous low record in 1933 of 125. This condition is in direct contrast to the mortality in 1906 when 3,917 Pennsylvania citizens succumbed to this disease. It was also stated that so far this year many counties and communities over 10,000 population have not reported a single typhoid fever death.

"The 1934 typhoid record is an outstanding example of the ability of medical science to overcome disease," said Dr. MacBride-Dexter. "The consistently decreasing number of deaths from typhoid in Pennsylvania in no small measure indicates the value of health education which has permeated all sections of the Commonwealth with facts on water and milk supply control and sanitation.

"While the more populous centers involving over eight million of the citizenship have their water and milk supplies controlled, vast sections of rural territory must rely upon the interest and intelligence of individuals to eliminate the typhoid menace from privately owned and individually supervised water and milk supplies.



Supervised Milk Supplies Have Helped to Rout Typhoid

"The fact that the farmer is alive to the possibilities of a germ laden well or spring, which has been proved by his increased requests to the Department for biological examination, is one of the major factors for

e present satisfactory typhoid fever situation. Another one is the berculin testing of cattle and hygienic safeguards surrounding milk oduction.

"In the light of the present reports an intelligent concern on the part all users of uncontrolled sources of water will largely solve the re- aining factors in the typhoid fever problem. Pennsylvania can well gratified with the present record."

A NEW SCHOOL CHART—The Department recently announced e production of a new communicable disease chart for use in school stricts by school teachers, medical officers and school boards. This art sets forth the factors involved in the control of communicable dis- ses based on departmental regulations. It sets up in a visual manner e signs, symptoms, source of infection, method of transmission, quar- tine periods and control measures of the diseases involved. This chart is prepared jointly by the bureau of health conservation and the school vision. It is now available upon request.

RABBIT FEVER—Only one case of tuleramia, or so-called rabbit's sease, was noted by the Department during the small game season and mediately thereafter, according to a recent report submitted to the cretary of Health, Dr. Edith MacBride-Dexter, by Dr. J. Moore mpbell, director of the bureau of health conservation.

"While in previous years a score or more cases reached the Depart- ent's attention, this year but a single case has been noted. This satis- ctory situation is in part due," said Dr. Campbell, "to information re- ated from year to year regarding the handling and dressing of rabbits.

"Tularemia is an affection caused by a germ harbored by diseased bbits which, in turn, finds its way into the blood stream of the human rough cuts or abrasions on the hands when such rabbits are being essed. Undoubtedly hunters are wiser to this hazard than they form- y have been. Consequently this caution has been reflected in the pres- t lack of reported cases."

EXAMINE SCHOOL CHILDREN—One hundred and seventy- ght thousand children in the fourth-class school districts have been ex- ined by the 398 school medical inspectors of the Department since ptember 1st last year. The Department's reports definitely indicate at on the whole more attention is being paid by parents to the physical ndition of children than formerly.

Parental cooperation in official child health activities is doing much develop healthier children than formerly was the case. To keep the ungsters in fine fettle the many public health authorities must be finitely supplemented by parental concern. Only thus will the maxi- im advantages in individual child health and physical development be ained.

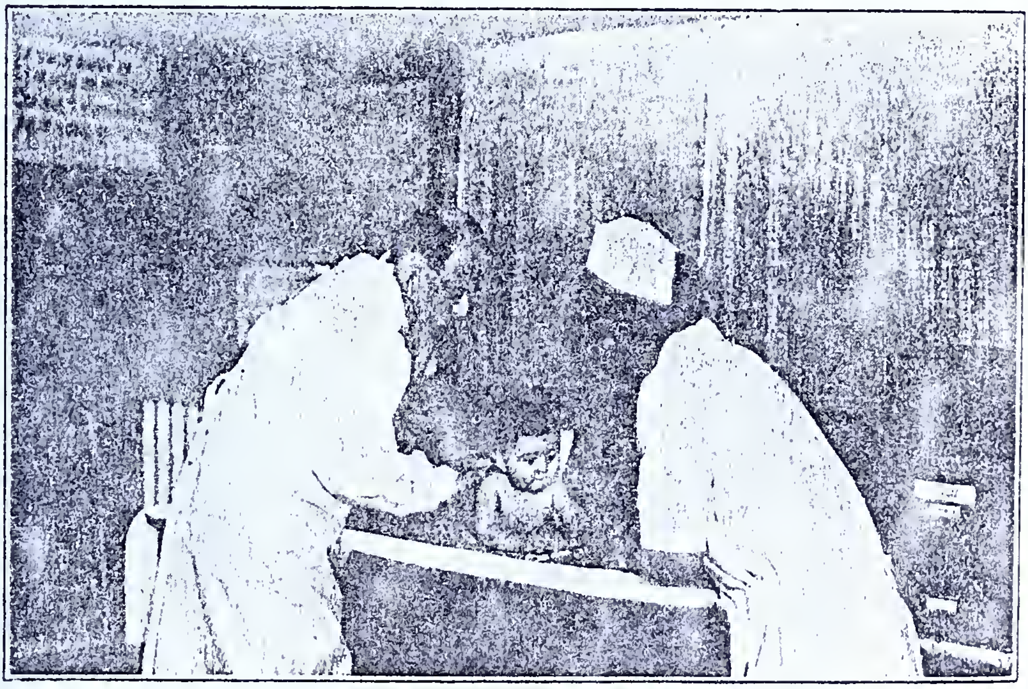
NURSES VISIT SCHOOLS—During the last thirty days 1,776 hool buildings were visited by members of the Department's nursing ff to check up on the origin of communicable disease. Follow-up its in the homes totaled 2,158, with 3,518 children involved in the vestigations.

THUMBS DOWN ON THE MARATHON—Walkathons and marathons were recently discredited by the Department on the basis of the physical risks involved in such endurance tests.

In this connection Dr. Paul A. Rothfuss, Deputy Secretary of Health, said: "This type of so-called entertainment exploits and victimizes young people who either for lack of parental supervision or innate common sense take part in these gruelling contests.

"The recent death of a marathon dancer in Pennsylvania and the serious physical impairment that has followed the habitual practice of numerous participants in such events justify the Department in taking a direct stand against this ticket-office attraction.

"While there is no desire to interfere with legitimate amusement and recreation, or to deprive sponsors of popular amusements of their ability to continue in business, the fact remains that the devitalizing demands that are inevitably associated with walkathons and marathons are such as to justify the official opinion that health rather than the pocketbook should in these instances be the primary factor."



A Healthy Early Start Means Much for the School Child Later

TUBERCULOSIS CLINICS—Four hundred and twenty-one tuberculosis clinics were conducted during the last four weeks by the Department in which 351 new patients were received and advice given to 4,275 old ones. Three hundred and twenty-one patients were discharged. A total of 4,178 men and women were admitted through these clinics to the State sanatoria located respectively at Mont Alto, Cresson and Hamburg.

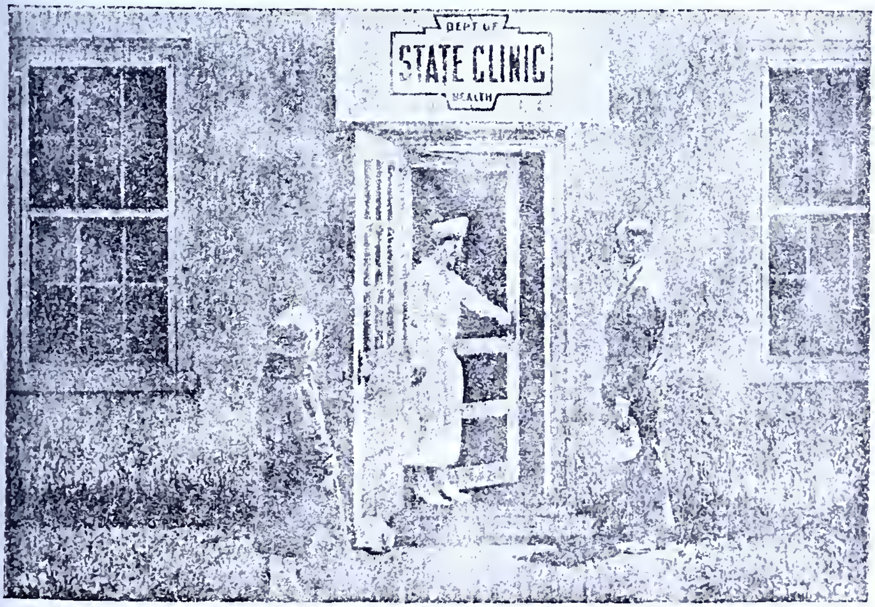
EVADE SHELL FISH LAW—The alleged bootlegging of shell fish
Pennsylvania has been brought to the attention of the Department
rough health officers in various sections of the Commonwealth, accord-
ig to a statement recently issued by Dr. Edith MacBride-Dexter, Secre-
ry of Health. It is claimed that coal truckers carrying coal from Penn-
lvania mines to places along the coast are returning with shell fish in
ılk and disposing of this stock in this State.

"This practice," Dr. MacBride-Dexter said, "is contrary to the inter-
ate regulations regarding the shipment of shell fish in the shells. The
nited States Public Health Service, therefore, as the official body super-
ising this activity, has been notified of the situation.

"In addition to violating the interstate regulation, coal truckers en-
aged in this practice are also violating a state regulation which makes
illegal to ship shell stock unless transportation is made in clean con-
iners and plainly marked with the name and address and with identifica-
on of the shipper.

"Of course the intent back of both regulations is to insure consumers
f shell fish delivered in Pennsylvania and other states in the shell that
ıch stock has come from approved and uncontaminated sources.

"While there is no desire to interfere with legitimate commerce in
ıell fish, the public health hazards involved in the purchase and use of
ıch stock from highly contaminated beds and sources justify official
ıvestigation of this alleged practice. The steps to be taken in Pennsyl-
ania will be supplemental to those instituted by the United States Pub-
c Health Service."



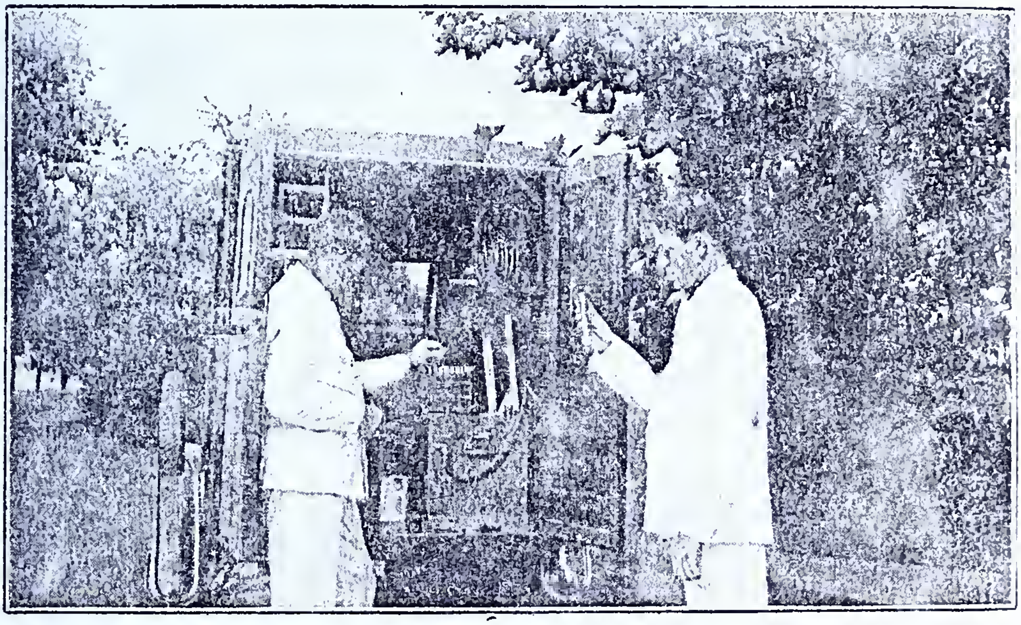
One of the Gateways to Health

ANNUAL MILK SURVEY—The annual survey of farms produc-
ıg milk for pasteurization was recently completed by the Department's
ureau of milk control. More than 50,000 farms are within the Penn-

sylvania milk shed. The territory includes the eastern shore of Maryland, the State of Delaware and part of New Jersey, as well as Pennsylvania. This survey involves ten per cent of the total farms supplying milk in this Commonwealth. It is conducted by Department-approved inspectors who are employed, however, by the milk dealers themselves.

"A study of the report indicates that there has been improvement in the sanitary condition of the barns and in the equipment and methods involved in milk production," said Dr. Edith MacBride-Dexter.

"The Pennsylvania farmer has been highly cooperative in meeting the necessary demands for health and sanitation. The public, in turn, has reaped a decided benefit in the definite removal of certain hazards which had been associated with careless and insanitary methods."



The Motorized Laboratory Checks on Sources of Milk Supply

STUDY FEDERAL PROJECTS—Engineers in the seven engineering districts of the Department are now engaged in an intensive study and preparation of reports on water and sewer projects to be undertaken by municipalities within the Commonwealth with federal aid. It is expected that hundreds of men will soon be given employment in many sections of the State in the development of these improvements.

ADD NEW HEALTH FILMS—The division of public health education recently acquired a number of 16 mm films on popular health subjects. This augments a service which formerly was limited to the standard width motion picture. The addition was made because of an increasing use of the narrow width projector in schools, colleges and smaller groups, from which sources many requests for this type of service arise.

CHECK CONDITION OF TENEMENT HOUSES—Through its housing and sanitation section the Department recently has investigated a large number of complaints of insanitary conditions in tenement houses. The recommendations and orders made by the Department upon investi-

on have in every instance been limited to minimum requirements for protection of public health.

Many landlords of houses from which low rentals are obtained in sperous times have permitted properties to run down because of lack income to make the necessary repairs. It is estimated that thousands families are now living rent free in such dwellings and have been ng so for months. For this reason the policy of minimum repair uirements has been established.

Little Chance for Health Here

SCHOOL HEALTH—In order to make a study of the physical ndition of school children by ages, tabulations are now being prepared the Department by age groups for school children in the fourth-class hool districts.

The results will be made available to the county superintendents rough the cooperation of the Department of Public Instruction. The epartment announced that this is a new departure in tabulation and akes possible a more accurate method of determining physical handi-ps in children of school age.

Vital Statistics Comment

MORBIDITY FROM FIVE DISEASES IN 1934

Florence Hardy
Statistician

AN IMPORTANT element in Vital Statistics, in addition to the recording of births, deaths, and marriages, is the tabulating of communicable diseases. While the registration of deaths is as nearly complete as possible, the past twenty-five years have witnessed a distinct improvement in the assembling of morbidity data. In the control of communicable diseases, mortality statistics are of secondary significance compared with case reports. With knowledge of the cause and mode of transmission of infections, it is essential to the sanitarian to locate the outbreak. This is the principal use of morbidity records.

It is true that the reported number of cases of communicable diseases is far from complete. In some instances the attack is considered too mild to warrant medical attention. Unfortunately, parents often rely on their own judgment in treating a case of contagious disease in order to escape the quarantine. Furthermore, through carelessness, many known cases of disease are not reported by physicians and health officials.

However, in spite of the discrepancies in morbidity reports, they serve as indices of the current incidence of certain diseases. From them, the epidemiologist obtains one of his strongest weapons in eliminating these common dangers to the public health.

Monthly reports of a disease are of particular interest when compared with the annual morbidity record. In the following table the reported cases and case rates are given of five communicable diseases by months in 1934.

	DIPHTHERIA		MEASLES		SCARLET FEVER		TYPHOID FEVER		WHOOPING COUGH	
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
TOTAL...	2,597	26.0	73,735	736.7	22,836	228.1	970	9.7	23,942	239.2
January.....	352	41.4	5,969	701.9	3,141	369.4	42	4.9	2,639	310.3
February....	191	24.9	5,994	780.9	2,834	369.2	32	4.2	2,061	268.5
March......	223	26.2	13,376	1572.9	3,108	365.5	39	4.6	2,327	273.6
April........	238	28.9	16,899	2054.7	3,084	375.0	49	6.0	2,192	266.5
May........	212	24.9	13,885	1632.8	2,384	280.3	45	5.3	1,597	187.8
June........	156	19.0	5,950	723.4	1,068	129.9	90	10.9	1,880	228.6
July........	139	16.4	1,478	173.8	423	49.7	124	14.6	2,307	271.3
August......	100	11.8	395	46.4	400	47.0	152	17.9	1,907	224.2
September...	173	21.0	498	60.6	719	87.4	182	22.1	1,496	181.9
October.....	296	34.8	1,263	148.5	1,521	178.9	103	12.1	1,926	226.5
November...	250	30.4	3,003	365.1	2,045	248.6	75	9.1	2,011	244.5
December...	267	31.4	5,025	590.9	2,109	248.0	37	4.4	1,599	188.0

Rates are computed on an annual basis.

Of these five diseases the morbidity from measles and whooping gh showed a marked increase over 1933; while diphtheria, scarlet fever typhoid fever cases decreased in number. The reported number of s of measles and whooping cough in 1934 was nearly double the l for the preceding year. New low records, on the other hand, were blished in the morbidity from diphtheria and typhoid fever.

PENNSYLVANIA'S HEALTH

MAY—JUNE, 1935

Special Articles by R. H. McCutcheon, J. Clarence Funk, Samuel J. Dickey, Howard E. Moses

PHE 1.17/4/7

EDITH MacBRIDE-DEXTER, M. D.

Who Became Secretary of Health, January 15, 1935
By Appointment of Governor Earle

Pennsylvania's Health

Official Bulletin of the Pennsylvania State Department of Health

EDITH MacBRIDE-DEXTER, M. D., Secretary of Health

J. CLARENCE FUNK, Sc. D., Editor

Vol. 13 Harrisburg, Pennsylvania, May-June, 1935 No. 3

"Acceptance for mailing at special rate of postage provided for in Section 1108, Act of October 3, 1917, authorized April 6, 1923."

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Published bi-monthly by The Pennsylvania Department of Health, Harrisburg, Pa. This Journal is free to the people of Pennsylvania. A request to the Editor, Department of Health, Harrisburg, Pennsylvania, will bring a copy of this magazine to your home without charge.

Editorial

THE HOME ACCIDENT PROBLEM

THE entirely proper emphasis that is being placed upon the increasing number of automobile casualties in a measure has obscured the sad fact that home accidents have also reached alarming proportions.

Four million of anything is a huge number. However, when this figure is applied to accidents in that imagined isle of safety known as the American home, it becomes a very real calamity. And that exactly is what happened during the immediate past twelve months, according to recent compilations. Moreover, the fact that twenty-four thousand persons lost their lives through this cause alone makes the picture, already black, even more so.

Of course, everything Americans do they are prone to do in a big way. But to apply this principle to such an extent that a devastating thoughtlessness results, is carrying matters just a bit too far. And indeed little else can be blamed for this disturbing accident rate.

Never has there been a time in the history of man when health officials, welfare agencies and "foundations" have been so generously and genuinely interested in the well-being of the average citizen as they are today. But, on the face of it at least, it cannot be stated that the individual is displaying more than a minimum of interest in his own health and happiness; that is, if the home accident situation can be used as a guide in this connection. Indeed, carelessness and indifference seem to rule more than caution and thoughtfulness.

No one can deny that pure water, safe milk, protection against communicable disease, and preventive medicine generally have actually worked miracles in terms of health and happiness in the last decade or so. Because of these spectacular advancements life itself has been made infinitely more enjoyable and fundamentally safe.

On the other hand, this progress counts for absolutely nothing to that person who, through sheer carelessness, is guilty of some act that results in a fatal home accident. In matters of this character science and health officials are as helpless as a little child.

Thus when it is discovered that nearly forty per cent of the casualties were caused by falls on floors, on walks, over objects, from ladders, tables, chairs, benches, and in bathtubs, those interested in public health can but sigh and officially lament.

They are equally helpless regarding accidents caused by sharp instruments, burns, hot water, matches, cigars, acids and chemicals, by stepping on broken glass or nails, by explosions of fireworks and gasoline, and by asphyxiation.

Caution and reasonable care are the only antidotes for the present home accident incidence. Those who really enjoy life and seriously wish happily to remain "among those present" for a long time will realize that the home accident situation is a real challenge—and then will govern themselves accordingly.

J. C. F.

FIGHT TUBERCULOSIS WITH MODERN WEAPONS

R. H. McCutcheon, M. D.

Medical Director, Mont Alto Sanatorium

SINCE 1906 when Pennsylvania entered the federal registration area, we have seen the tuberculosis death rate drop from 151 per 100,000 population to 51 in 1933, with a drop in tuberculosis deaths annually from about 15,000 to 5,059. With this gratifying fall in tuberculosis deaths we have seen tuberculosis go from first place as a cause of death to sixth, and if accidental deaths are considered, to seventh place. The other side of the picture is that tuberculosis still ranks first as a cause of death in the age group 15 to 25 years, that three girls die of this disease for every two boys. It is still the great killer of youth, adolescence and our young men and women.

It is conservatively estimated that for every death there are at least nine active cases, and for every active case there are at least two children and one adult in close contact, representing the potential cases of the future. Translating this into actual figures means that in Pennsylvania there are probably 45,000 active cases of tuberculosis, and in contact with these at least 90,000 children and 45,000 adults. A pertinent question might be raised as to how many of these active cases are known, and how many of these contacts have been examined. Some of these cases are hospitalized and so removed from society as a source of danger. But certainly not a very large proportion of the probable active cases.

The Fight Against Tuberculosis—Successes and Failures

Education has been one of the principal weapons of attack. Education of children in the schools, of parents and teachers; education through the press, the radio, and especially by means of posters and widely distributed literature. The examination of contacts, the annual health examinations, early diagnosis campaigns, diagnostic clinics and the local clinic and sanatorium have all contributed largely to the success in past years in lowering the death rate and in preserving the health and lives of our people.

It is difficult to evaluate these various methods and to appraise their true worth. Certainly the education of the public is essential and the dissemination of proven facts about the disease, its symptoms, the treatment, the contagiousness and how to avoid infection, as well as other public health aspects of the disease, must be kept before the public at all times.

It is to be questioned if the clinic and the various early diagnosis campaigns will reach more than 15 per cent of the active cases and their contacts, and too large a number of the active cases willing to report to the clinic will be found in an advanced stage of the disease. The clinic has failed to find any large proportion of cases until lung tissue has already been destroyed and consolidation and cavitation are already present. The need for some method whereby true early diagnosis can be made and a method that may be generally employed in large population groups, is obvious. The failure to find and diagnose a larger proportion of our active cases, especially while they are in a curable stage of the disease, is not a criticism of our clinic system. It is to a large extent due to failure of the patient to report for examination until very definite symptoms of ill health occur.

Better case finding methods are essential to the continued lowering of tuberculosis death rates, but it must be remembered that case finding is "But one gear in the tuberculosis control mechanism." For example, it is most tragic to find active tuberculosis in a young girl and then after listing her for admission send her home without medical supervision to await her call some months hence.

The proportion of hospital beds for the treatment of tuberculosis to tuberculosis deaths has been steadily increasing in Pennsylvania, until now we have reached the goal set many years ago of one bed for each annual death. Already, many states have adopted the goal of two beds for each death as being the desired minimum. Certainly there is a very definite ratio all over the world between tuberculosis deaths and tuberculosis beds. The countries with the lowest bed-death ratio invariably show the highest tuberculosis mortality. For instance, Japan with a ratio of one bed to forty deaths has a tuberculosis mortality of 213 per 100,000 population, while New Zealand with a ratio better than one bed to a death has the lowest tuberculosis mortality in the world. This close relationship gives a clue for future planning for more sanatoria beds and possibly more beds in local general hospitals available for tuberculosis cases.

A Phase of Tuberculosis Prevention at Mont Alto

In considering the failures or rather the weaknesses in our programs of the past two decades, one fact stands out. We have failed to prevent tuberculosis deaths in adolescents and young adults, in the ages of 15 to 25 years. We have failed to prevent the infected children, especially the girls, from developing adult tuberculosis. It is now accepted that the causes of the very high tuberculosis mortality in the 20-25 age group may be directly chargeable to certain factors in the lives of our adolescents in the preceding decade. Thus, a brief discussion of the infection by the tubercle bacillus and the childhood type of the disease seems pertinent.

Childhood Type Tuberculosis

When there is an active case of tuberculosis in the home, children in contact are usually infected in infancy or early childhood. It is usual to find nine times as many infected children in the homes harboring active cases of tuberculosis than in homes free of such contact. Although the home infection by the tubercle bacillus is the most serious menace to the contact child, when the child begins school life he is subjected to the chance infection in the streets, school buildings and less common infection from a school mate. It is probably not true today that the infection is universal by the 21st year, but rather that it is becoming less general as tuberculosis deaths decrease and sources of infection become less numerous. It is common to find from 35 per cent to 75 per cent of city high school children infected, while in the rural areas the percentage of infection is often as low as 20 per cent.

Diagnosis During Latency

In later childhood there is usually a long latent period between the time of infection and the appearance of manifest symptoms of disease. This latent period may last from three to eight years. In the majority of cases it is not followed by active disease of the lungs. Although the site of the infection is initially in the lung parenchyma, this lesion of first infection is usually small and tends to heal promptly as the bacilli and their toxins are rapidly carried by the lymphatics to the nodes in the hila of the lungs or to the nodes in the tracheo-bronchial region, the disease then becoming localized in these lymph glands.

It is obvious that since the lung parenchyma is not involved, such glandular lesions will give no abnormal findings on the most careful physical examination. During the long latent stage there are usually no symptoms of ill health, no cough, no fever, no loss of weight and no reason for the child to be brought to the physician. We have then a most insidious type of the disease, without symptoms or physical findings, even though the lesions may be slowly progressing and danger of spread to lung parenchyma may be imminent.

Fortunately this childhood-type tuberculosis is usually benign, tends to heal, and in a few years calcification of the diseased nodes occurs. In a small number, usually from 1 to 3 per cent of the infected children, healing does not occur. Thus, eventually, active lesions in the lungs appear with the usual symptoms of active disease. It is possible accurately to diagnose childhood-type tuberculosis during the latent stage, during the benign symptom-free stage by means of the Mantoux (intracutaneous tuberculin) test and the x-ray. The positive Mantoux shows that infection by the tubercle bacillus has taken place, but this test gives no information as to the seriousness of the infection or the presence or absence of active disease. The x-ray of the positive reactor usually gives this information definitely, and by serial x-ray films the progress of the condition can be known. *This is true early diagnosis*—diagnosis before lung tissue is infiltrated or destroyed, diagnosis before any evidence of ill health is manifest, and diagnosis while the disease is in its most benign form and when complete arrest and healing are possible in a relatively short time, and often without removal from school.

If this latent childhood tuberculosis is usually so benign and so prone to heal without any clinical evidence of its presence, why does this healing not occur in every case? Why do we find that 1 to 3 per cent of the infected adolescent children have active disease of either the childhood or adult type? This leads to a discussion of the causes of active disease in childhood and early adult life, keeping in mind that these causes which operate in adolescent years are too often responsible for death in the following decade of life.

Cause of Active Disease—Fatigue

Fatigue is the principal cause of active tuberculosis and of tuberculosis deaths in the "teens" and twenties. There are often many factors that enter into the progression of the disease from its latent stage to activity and to the development of the adult type of the disease, but fatigue far out-weighs them in importance. Fatigue has become almost a concomitant of high-school life, not so much as a result of curricular changes but rather because of the many extra-curricular activities that have been added to our child's daily program. The many organizations such as the high-school band, orchestra, literary society; the activities connected with the church, the Y.M.C.A., as well as the social life, the movie and the automobile have all conspired so to speed up the child's life, and so fill his day and night, that no time is left for rest, recreation in the open-air and sun-shine, or even for ample sleep. Insufficient rest and sleep are common faults today. Chronic fatigue is the result.

Scholastic Athletic Sports

No other single extra curricular activity has had as much to do with causing fatigue as competitive athletic sports. An article in the *Saturday Evening Post* entitled "Burning Out Our Youth" forcibly emphasized the over-training, and the hard schedule of games and meets to which our boys are subjected in high schools and preparatory schools. Many of these star athletes suffered from chronic fatigue to such an extent that they were kept out of athletic sports entirely in their first college year. The author was writing of boys, presumably in good health, probably not seriously infected by the tuberculosis germ. If the healthy non-infected boy cannot always stand up under the stress and strain of strenuous sports, it is sheer suicide for the seriously infected boy to attempt it. Such a boy might make the grade and overcome his infection in the course of a few years, but he has no chance when extreme fatigue is added to his already heavy health burden.

True, these children do not often succumb on the athletic field. If they did it might be a blessing in disguise and save the lives of many others. It is more common for them to have a gradual progression of the disease to which they are apt to fall victim in the course of the next three to eight years. Their deaths are directly chargeable to the extreme fatigue of high school years.

A particular indictment against scholastic sports is found in the results of examining 30,000 high school students by the Mantoux test and x-ray. Three per cent or 900 children were found to have active tuberculosis, but the interesting fact was that 90 per cent of these active cases played on one or more athletic teams. In other words, if only the athletic teams of these high schools had been examined, 90 per cent of all the active cases would have been discovered!

In 1932, four active, advanced cases of pulmonary tuberculosis were found in one high school. One of these was among the applicants for the track team, and his death occurred in less than four months. Another boy spent two years in the Sanatorium, continuing treatment at home, and returned to school in the fall of 1934. Two other deaths have occurred in the past year. In other schools an occasional child is found with active adult disease capable of spreading the infection to school mates.

The Real Cause of Active Disease—Ignorance

From the fact that so many children do stand the stress and strain of their scholastic years well, the blame for the few tuberculosis deaths chargeable to this age would not be put on the fatigue incident to their enjoyment of life and all that it offers them, as much as on ignorance. Ignorance of the fact that certain children have been seriously infected by the tubercle bacillus and therefore should not be subjected to the same strenuous lives as their well associates, is the real cause of their deaths. If the school authorities, the teachers and the parents knew which children were infected they could take the necessary precautions to limit their activities, to bar them from sports, and if necessary from all extra-curricular activities until nature had completed the healing of their lesions, and until their period of growth and development was completed.

Recreation, Fresh Air and the Sun Do Much to Build Up Young Bodies

The Remedy—Knowledge

If the cause is ignorance, surely the remedy is knowledge. The Mantoux test will give us a part of this knowledge, and the x-ray furnishes the most positive knowledge by which the child's activities can be directed.

It is a relatively simple and inexpensive matter to give the Mantoux test to all students in the high schools and junior high schools. This test will at once pick out the group of infected children. No child should be permitted to engage in scholastic sports if the Mantoux test is positive, unless an x-ray of the chest shows that the infection is perfectly healed. The same requirements should be placed on those engaging in other extracurricular activities. With such a program actively carried out and repeated every other year, school authorities will feel that every possible precaution is being taken to guard the health of the child, and that no child will be doomed to die an early death from tuberculosis due to the activities of school days. Ignorance should not be tolerated in our schools when knowledge is purchasable so cheaply.

The Adolescent Girl

The higher death rate among girls in adolescence and the twenties deserves a word of warning. Boys and girls are equally infected by the tubercle bacillus as shown by many thousand Mantoux tests, but that girls are more susceptible to the disease and have less resistance once they are infected, is evidenced by their higher death rate. Girls have a more complex nervous system, and are much more affected by the changes of puberty during the developmental years of adolescence than boys. It is also a fact that girls are more prone to malnutrition and become more generally malnourished than boys, especially in the ages of eleven to thirteen. The diet fad affects girls, and rarely is a boy worried about such nonsense. Many girls are notoriously poor breakfast-eaters, and avoid eating what should be a real nourishing meal, if not the highest calorie meal of the day. Girls do not have the same physical stamina and are more apt to travel on their nerve when completely exhausted than are boys. These are at least some of the reasons why they are so susceptible to tuberculosis, and why special efforts should be made to protect their health through the age of development. A positive Mantoux test in a girl must then be considered as more serious, and a suspicious shadow in the x-ray film must be given more weight than when a boy is concerned. Girls evidently need more time for rest and sleep; athletic sports are more dangerous, and infection by the tubercle bacillus must be considered more serious.

Modern Weapons

Before the use of the x-ray was possible for the diagnosis of chest conditions the diagnosis was made by symptoms and stethoscopic findings. In those days when a diagnosis of tuberculosis was correctly made in a child, that child died. Using the modern methods of diagnosis—the Mantoux test and the x-ray—it is possible to diagnose the presence of infection and latent disease from one to three years before symptoms appear, and from three to eight years before death from the disease would ordinarily occur. By these modern weapons it is possible to protect the health and preserve the lives of our youth during the most strenuous if not the most dangerous period of their existence.

Compulsory vaccination has eliminated small-pox in our Commonwealth, and the use of the toxin-antitoxin and toxoid have greatly reduced the loss of life from diphtheria, and would wipe it out entirely if used as generally as vaccination. There is no vaccine and no antitoxin to protect against tuberculosis. The cause of tuberculosis is fatigue; the only protection is adequate rest and limitation of physical exertion. The only treatment is rest.

Today, no army would take the field with muzzle-loading muskets. Today, we must use modern weapons to diagnose tuberculosis and to check the greatest killer of our youth.

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The Health Gnome Says—

Cannon, bullets, gas, and "subs"
  Have killed many men in strife;
But countless scholars also,
  Have much improved this life.

In truth, science and invention,
  Have maintained a worthy pace;
And have added joy and happiness
  To all the human race.

The fact however yet remains,
  That with all the progress made;
Each fellow has his part to play,
  If life is not to fade.

A careless step, a risky climb;
  And in other home-made ways,
Folks cause many accidents
  That abruptly end their days.

So, watch your step, be on guard,
  Life is short at best—
Do not let some thoughtless act
  Put you too soon to rest!

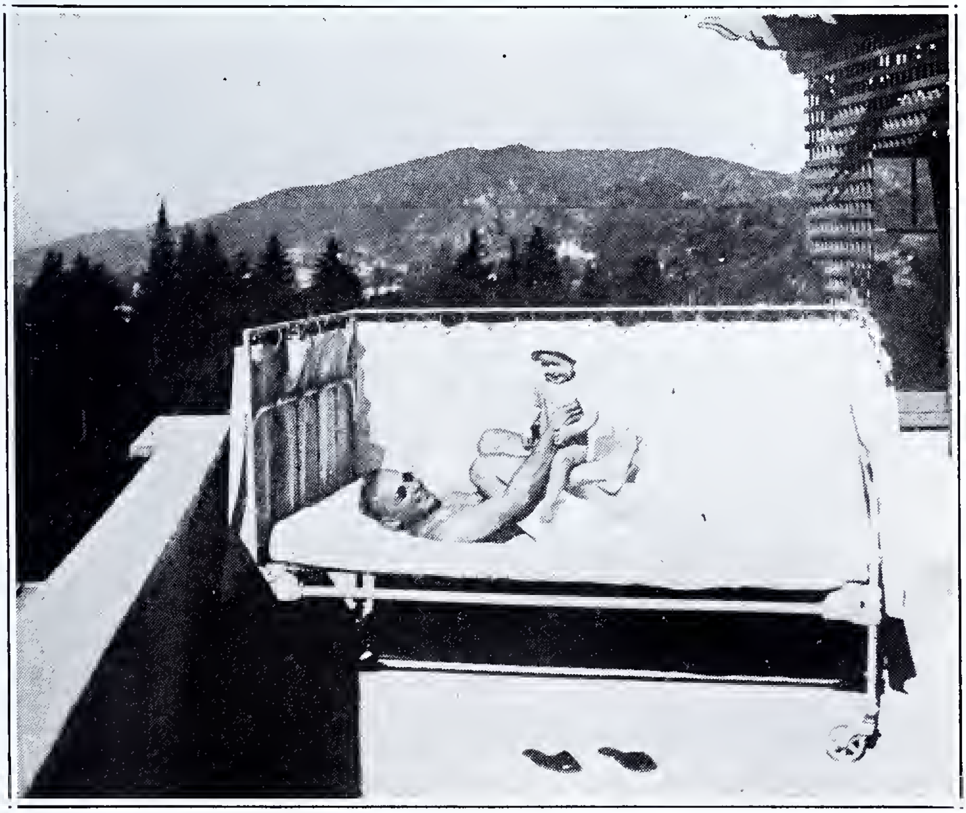
J. C. F.

BACK TO NATURE AND THE SUN *

J. Clarence Funk, Sc. D.
Chief, Health Education Division

A NUMBER of years ago a Swiss surgeon named Rollier dared to send clothesless human beings out into the zero weather and say to them, "The cold will not harm you, and the sun will make you well."

It seemed a very desperate thing to do, and naturally there were many skeptics. It was even intimated by some that the gentleman was slightly "touched." However, as amazing facts cannot long be isolated, it soon became known that this fellow with his nude people disporting themselves in the nipping Alpine air had something quite worthy of serious investigation.



Sun-Worshipers in California

To begin with, there had been something wrong with these breech-clouted persons. And it was bad enough. The dread tuberclosis germ, which has been such a woefully successful and world-wide destroyer of human life, had taken hold of them. Some were held in a death grip, others less harshly; but over all hung the sword on the silken thread with the significant word "Doomed" on its hilt.

Then the sun was put to work. By degrees the patients' clothing was lessened, gradually portions of the naked body were exposed to increasing doses of sunshine, and finally all restrictions were removed. Zero weather, ice, snow, biting breezes; and the sun, with its direct rays upon the body and its reflected heat from the snow-covered ground, keeping human beings garbed in the scant dress of the African jungle in a perfectly comfortable state!

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So much could be seen. The spectacular had been achieved to an almost pyrotechnical degree. But the real marvel was not upon the surface. It lay too deep for men's eyes to see. The relentless battle of light versus germ had been fought. And the direct rays of the sun had splendidly conquered.

Pennsylvania's Climate Calls for a Less Rigid Affection for the Sun—This Sort of Thing is Popular in the Swiss Alps

Unbelievable transformations in physical appearance and conditions occurred. Handsome physical specimens of manhood, womanhood and childhood now proudly held their heads high. With blood and sinews purified and vitalized, these beings regenerated from hopeless invalidism, stepped proudly back into their respective places in ordinary life.

A young girl was admitted to the hospital more dead than alive, which in itself was not exceptional. However, in this instance the physical condition of the patient was particularly heart-rending. Lying helpless on her cot, with her form pathetically emaciated and muscles atrophied almost to extinction, life actually appeared to be leaving her. Yet her eyes sparkled in her haggard little face, and she feebly cried, "I want to get well!" Two years later she left the institution, with a body much in demand by sculptors because of its beauty. All thanks to the Sun!

Again, a five-year old boy with a tragically white face, blue lips and twenty-two pounds of diseased flesh, entered the mountain-top institution. With the sun untiringly at work, thirty months later he too was the delight of all eyes beholding him.

Decidedly, here was something inviting America's inquiry. And America quickly comprehended. Numerous institutions with a similar purpose are consequently now to be found in this country. And their story is fascinating.

During the spring, summer and fall months thousands of predisposed children play, rest and study in the fresh, pine-laden air, while old Sol caresses them back to health and paints their little bodies a beautiful dark brown. Clothed only in their smiles, tanned skins and wee "teddies," they are ideal examples of the real back-to-nature movement. It is a marvelously appealing picture.

Inasmuch as the North American latitude does not afford the dry cold and continued snow so necessary for the spartan treatment in the Alps, the loin-cloth ruling is in many sanatoria limited to the milder months, though there are exceptions, notably in New York State.

Therefore, during the winter season the ultra-violet rays lamp is applied, thus following the lead of a brilliant young Finn, the late Dr. Niels Finsen, whose work is said to have inspired the original disciple of the outdoor treatment. The efficiency of this remarkable light-giving mechanism seems to be second only to the sun itself.

It would thus seem that Hippocrates was on the right track many centuries ago in his utilization of nature, and really laid the foundation upon which modern medicine is engaged in building a magnificent structure.

It has been stated that heliotherapy, otherwise known as Sun treatment, is unapproached for certainty, ease and happiness during and after treatment. A visit to any of the institutions using this method most convincingly establishes this fact. Optimism and joy are the prevailing notes. Darkness and despair cannot compete with the sun.

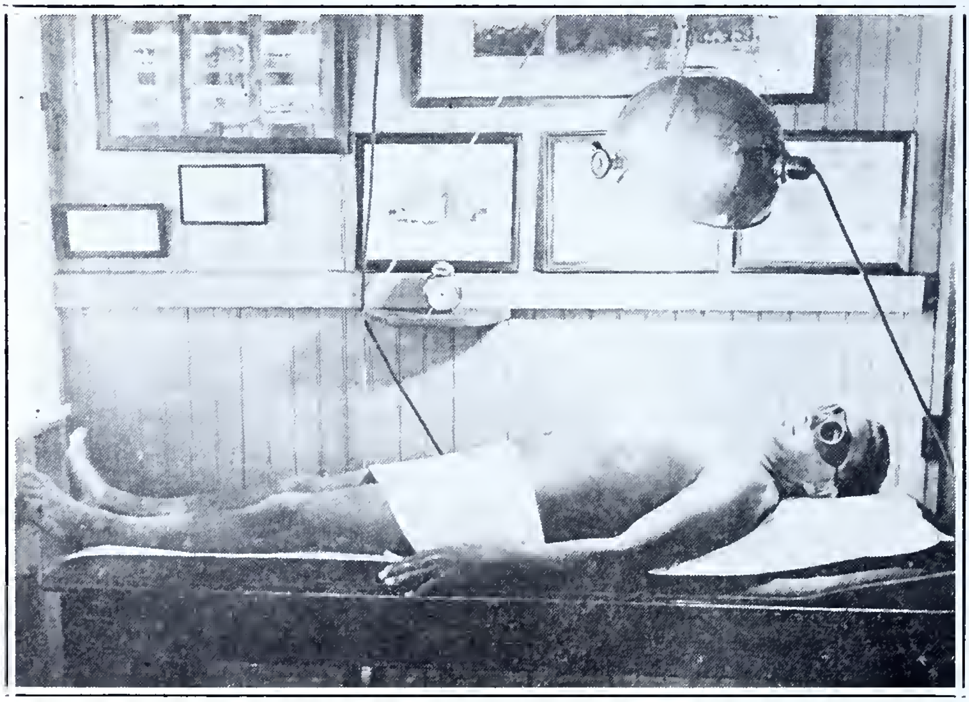
In response to a remark on the dark skins of his patients one of the superintendents said, "In a very short time our little people learn to enjoy the outdoor life and soon become brown as berries. So intense is the tan that a woman visiting in our vicinity for the first time, and seeing the children playing on the beach, asked if there were any white children in the institution!"

It should be made clear that the healing factor is the sun's light, not its heat. And by this is meant *direct* light. In the attic of a sanatorium visited, a large model of a glass house was found. It had been especially designed as a sun room for the tuberculous. Except as a children's play place, it is useless. Glass, unless especially manufactured, prevents the sun's beneficial rays from reaching the subject. The efficiency of ordinary glass in this regard is just as powerful as that of a piece of armor plate eighteen inches thick.

Which emphasizes the great advantage of this cure. It needs no expensive preparation. It is not patentable. And it is there for everyone, merely for the taking. After all, this may be a drawback, as prettily marked bottles, crackling x-rays, mysterious instruments, and impressive operating rooms are more prone to appeal to the popular fancy than just the plain, every-day garden variety of fresh air and sunshine. As one physician put it: "People are exceedingly fond of trimmings and circumstance. Not that medicine, the surgeon's knife, anaesthetics and highly perfected drugs have not all been of inestimable value. They have and will continue so to be. But simplicity is not alluring. In this case it is merely effective," he sarcastically added.

But for those who are ill the sun cure is not quite as simple as it sounds. Many factors are involved such as the patient's physical condition, intensity of the disease, and the personal reaction to sunlight. It follows that it is a matter for specialists and specialists only.

The question naturally arises, however, that if the sun is such a marvelous reconstructive agent for those who are ill with tuberculosis, rickets, and certain types of wounds, why shouldn't it be good for the rest of us? The answer is, it *is*.



The Therapeutic Lamp Plays an Important Part as a Substitute for the Sun

"Back to nature and the sun" is slowly but inevitably becoming a popular slogan. It is attracting followers daily and in constantly increasing numbers.

"Give me a chance," implores Nature, "not only with sick people but with everyone. My pine and hemlock forests, my pure country air, my mountains, my lakes, my streams and oceans will be your slaves if you will but have it so. I cannot cure appendicitis and other acute conditions, I admit. But let me construct my sunlight fortifications against the germ invasion, and behold how the army of serious ills will leave the battle field routed before they can attack! In this manner I can bestow Life, Health and Happiness. What more is desired?"

Common? Yes. Free? Yes. Sane? Well, it certainly seems so. What do you think?

CONTROL OF COMMUNICABLE DISEASES IN PUBLIC SCHOOLS

Samuel J. Dickey, M. D.
Epidemiologist

IT took a long time to realize that the whole child goes to school—his body, mind and soul; that education of the mind alone is onesided and may be harmful; finally, that the hygiene of the child and his teacher, as well as the sanitation of school buildings and their equipment are of fundamental importance.

The combination of compulsory education and schools having an unbalanced course of study, or impure water, or poor air, or improper sanitation, is a crime by the State against its children. The child profits directly from attendance at a school which has due regard for his physical well-being as well as the development of his character. The State profits indirectly from the lessons in sanitation and hygiene which the children carry to their homes and which as future citizens they will apply when they become the heads of homes. The principles of personal hygiene and sanitation intelligently practiced in our schools should become second nature and the intelligent application of those principles naturally hasten the conquest of preventable disease. On the other hand, it is an economic waste to educate children and then permit them to die of some preventable infection before they have reached the period of maturity and productivity.

Both the immediate effects and the remote influences of these principles upon adult life should be taken into consideration. Youth is the time of unrest and activity. It is a primary function of the school work to direct these energies in order that the best development may be attained. Youth also requires generous nourishment and sufficient sleep. A child who comes to school tired and worn from disturbed slumber cannot profit in body or mind. The child who comes to school hungry and who does not have a judicious luncheon is seriously handicapped physically and mentally. By this same yardstick the child who comes to school suffering from the early stages of some acute infectious disease carries a serious handicap by being a potential menace to all the other school room inhabitants who, through contact, may become infected with the same disease.

Parents naturally have come to regard the school as a veritable pest house for the spread of communicable diseases of childhood especially measles, whooping cough, mumps, diphtheria, scarlet fever, chicken pox and the common cold. While there is possibly some ground for this conclusion there are other reasons why these diseases prevail in epidemic form more frequently during the school year than during vacation. One of them is the maximum opportunity for the spread of infection which occurs when a center of close aggregation is dispersed. It should be evident that the infection occurs in our schools because of this fact.

Diseases which are passed from one to another on account of close personal contact are numerous. Moreover, the means of conveyance for diseases that are communicated by secretions from the mouth and nose through droplet infection are exceedingly numerous.

Again, the schools are properly credited with causing communicable disease outbreaks because a child may become infected in school, carry this infection home and transmit it to the younger brothers and sisters. It is these conditions that should cause teachers ever to be on the alert for the early detection of these communicable conditions. Also they should be intelligently informed as to the procedure involved in the exclusion of such children.

It should be evident that the home, the school and the pupil himself have before them the absolute possibility of preventing many cases of communicable disease. Some of our best authorities believe that the chance of a child for life and health depends as much, perhaps even more, upon protection against certain infectious and communicable diseases than upon the care and promotion of personal health.

The School-Room Inspection is an Important Factor in Communicable Disease Control

The teachers in their school rooms are the advanced listening posts in our battle against the spread of communicable disease; and for this reason he or she is the person who is primarily responsible for keeping contagious and infectious diseases out of the classroom. This means that teachers must learn the early suspicious signs of such diseases so that in making the morning health inspection they will become efficient in making a diagnosis of health or ill-health.

Health diagnosis is really not diagnosis at all from the medical standpoint. It is a recognition of the normal and normal variations as against the early symptoms of oncoming disease. Every teacher in a school where neither school physician nor school nurse is available for the purpose should become efficient in the technique of a rapid daily inspection of all pupils to discover the presence of the early signs of illness, as well as to inspect the neatness and cleanliness of the child.

The following list of signs for which the teacher should look when she is making the health diagnosis is given as a basis for exclusion of the child.

1. A general impression, perhaps inexplainable, that the child is not in normal health.
2. Eruption (rash) or sores of any kind.
3. Fever. One should be able to tell this by the warmth and perhaps color of the skin.
4. Running nose. The watery type is the dangerous type.
5. Sneezing often suggests early onset of a cold. It is during this stage that this type of infection is most dangerous.

Follow-Up Activities by the Nurse Frequently Are of Great Value

6. Red or running eyes. This condition may be the result of a cold, the early symptoms of the onset of a contagious disease, or it may be the result of a visual defect.
7. Sore or inflamed throat. The child usually will inform the teacher if this condition is present.
8. Swollen glands of the neck. Children will be found who have small glandular swellings present at all times or following a sore throat or cold. These children need not be sent home every day but only when the glands become suddenly much enlarged.
9. Cough. Watch closely for suspicious coughs during the morning examination.
10. Nits or other moving objects found in the hair or clothing.

A table is here presented giving a few suggestions which may make this morning inspection of more use to the teacher.

1. Unusual rash or skin eruption may indicate one of the following conditions:—scarlet fever, measles, German measles, chickenpox, smallpox, ringworm, scabies, impetigo.
2. Complaint of sore throat may indicate diphtheria, scarlet fever, measles, tonsillitis.
3. Redness or discharge of the eyes may indicate measles, German measles, pink eye.
4. Running nose may indicate measles, diphtheria, scarlet fever, influenza, common cold.
5. Cough, frequent, spasmodic or with whoop may indicate whooping cough, tuberculosis, measles or the common cold.

Any child presenting a group of these symptoms and who appears to need more careful and expert inspection should be excluded, using form 43 provided by the Health Department for this purpose, under provision of Section 10 of the Act of July 7, 1919.

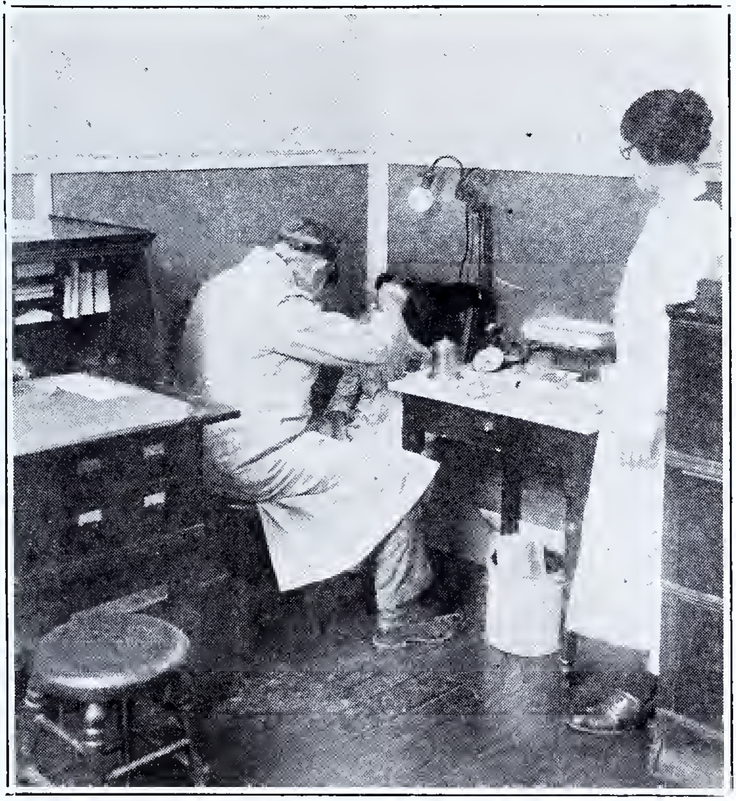
Always notify the health officer of any exclusion on account of illness or signs of probable illness. This also is required under the Act of July 17, 1919.

If a report from the physician on the reverse of form 43 is not returned within 48 hours it is the duty of the teacher to notify the truant officer, whose duty it is to make follow-up visits at the home and report the conditions he finds existing there, especially should his investigation reveal the possibility of the presence of a contagious disease.

The careful teacher will eventually become so proficient that she will be able to perform the morning inspection, described above, in a minimum of time and thus sort out those who appear to vary from their usual condition of health. This method is the one that at present is accepted as the most logical to be used for the prevention and control of communicable diseases in our schools.

Perhaps one of the most difficult conditions to overcome is the tendency to close schools upon the outbreak of a few cases of the acute communicable diseases, especially scarlet fever. While the question of closing schools is sometimes difficult to decide, the consensus of opinion now is that the successful control of epidemic diseases among school children is best carried out by keeping the schools open and increasing the frequency and vigilance of health inspections accompanied by the exclusion of cases, suspicious cases, and by home visitations by school nurses where they are obtainable. The closing of schools as a means of controlling epidemics should be used only as a last resort and then only after thorough systematic application of other measures fails to effect this control. As a routine method the indiscriminate closing of schools is clumsy, unscientific and unsatisfactory as it not only frequently fails to control but has resulted in missed cases and always in a loss of school time and money. The modern method of careful frequent inspection of the children attending the affected schools, their immunization against certain diseases and the isolation of ailing children are both more economical and effective. Finally, if the schools are closed it is imperative that other public gatherings open to children should also be prohibited if this procedure is to be made effective.

During the past few years the control of contagious diseases has been facilitated by a study of the control of the common cold. The common cold is not only infectious in itself but the accompanying symptoms associated with it are very often identical with the initial symptoms of many of the more serious communicable diseases. Children who give the appearance of coming down with a cold may in truth be developing measles, whooping cough, scarlet fever, diphtheria, meningitis, infantile paralysis, influenza or pneumonia. For this reason careful management of children presenting such symptoms becomes a matter of great importance in communicable disease control. Because of the uncertainty involved, a child suffering with what appears to be a common cold should be removed at once from contact with other children. If every child suffering with symptoms of a common cold were immediately isolated, put to bed and made to rest until the symptoms cleared or the correct diagnosis was established many of the more serious diseases would be far better controlled.



Checking Up On a Bad Throat

Since the common cold often is a forerunner of more serious respiratory infections and since it is the most frequent cause of school absences, it is only logical to assume that protection against its transmission should be one of the fundamentals in our health program. Teachers should give this matter their careful consideration. "Just a cold" should not be regarded lightly.

I wish to emphasize certain general suggestions of hygienic importance under the heading of "Personal cleanliness."

1. Keep the body clean by frequent soap and water baths.
2. Wash hands with soap and water after voiding bowels and bladder, and always before eating.
3. Keep hands and unclean articles or articles which have been used for toilet purposes by others away from mouth, nose, eyes, ears and other body orifices.
4. Avoid the use of common or unclean eating or drinking vessels or toilet articles of any kind, such as towels, handkerchiefs and hair-brushes.
5. Avoid close exposure of persons to spray from the nose and throat as in coughing, sneezing, laughing or talking.

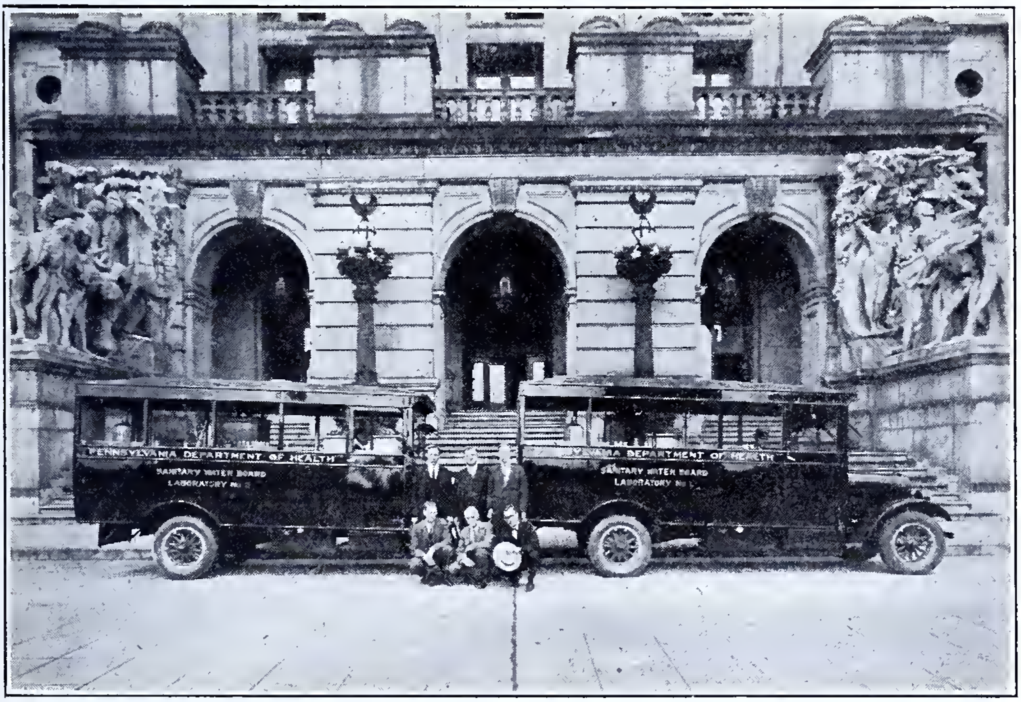
While there is still much to be desired in making our control of communicable diseases a perfect procedure, the suggestions above given should help teachers to acquire a better working knowledge of the problem and in that way make them more efficient in the problem of communicable disease control.

WATER PURIFICATION IN PENNSYLVANIA

Howard E. Moses
Assistant Chief Engineer

WATER is a prime necessity of life. It has many important uses, but its outstanding one is for drinking and domestic purposes. An abundance of water must be consumed by every human being for maintaining his health; and a reduction of the quantity available to him beyond a certain point will impair his health.

It is well to consider briefly the historical background of this vital commodity. The first public water supply in the United States was installed in 1652—283 years ago—in Boston, being the first of the various public utilities in the United States. The few waterworks of the colonies were crude affairs, frequently consisting of a bored-log pipe line leading from a hillside spring to a trough in the center of the town. Mostly these early community works were large wells from which the householders carried water.



Mobile Laboratories Guard Water Supplies in Rural Sections

Growth of public supplies was slow since at the close of 1800 there were only 17 waterworks, all but one privately owned. Not for 50 years afterwards did the number pass the hundred mark. But beginning in 1875, when there were only 243 public waterworks in the United States, rapid growth began. One thousand in 1885, nearly 3,000 in 1895, and today more than 10,000 communities in the United States have public water supplies serving many millions of people.

In Pennsylvania in 1736 there was established what is believed to be the first public waterworks in this State. That was 199 years ago, and 55 years after Charles II of Great Britain in 1681 gave William Penn a charter for "Pennsylvania" in settlement of a debt of 16,000 pounds which the King and the British Government owed William Penn's father.

Alexander Shaeffer and wife, Anna, granted in perpetuity for the use of the inhabitants of Market Street of the town of Heidelbergh, County of Lebanon (now Shaefferstown) a certain tract of land together with a leading spring thereon for a public water supply. Incorporated as Shaefferstown Water Company on April 16, 1845, by Act of Assembly, the water is piped from a hillside spring, said to be the original one, to troughs in the street and is still carried into the homes by householders.

Pennsylvania may take credit for the installation of the first waterworks pumping plant in the United States at Bethlehem in 1754. The pump was made of *lignum vitae* and was driven by water power. The first steam pumping plant in Pennsylvania was put in operation in Philadelphia in 1801 at the foot of Chestnut Street on the Schuylkill River.

From these early beginnings has grown the maze of water systems—some 700 in number—spreading throughout the Commonwealth and bringing water in abundance to eight million people, or 80 per cent of the total population of the State. This means that nearly every community in Pennsylvania of over 2,500 population has a public water supply and that most places of 1,000 or over are served by an independent system or from the mains of a larger adjacent municipality. In fact almost the entire urban population is supplied with water for all purposes through public waterworks.

Sources of Supply

The sources of supply of these works comprise springs, shallow and deep wells, ponds, lakes, and surface streams.

In Pennsylvania spring supplies are found as a rule only on the smaller systems although there are several in use producing from 5 to 15 million gallons daily. Only in certain sections do deep wells produce sufficient water for good-sized communities. But in general the principal sources are the surface supplies, usually the rivers and their tributaries.

The principal river basins are the Delaware on the east, the Ohio on the west, with the Susquehanna between. Lake Erie touches the northwestern corner and is the water supply of the city of Erie.

At Philadelphia the Delaware River is utilized for two-thirds the city's supply, the remainder being taken from the Schuylkill River. Elsewhere it is used only at Chester, Bristol, Morrisville and Trenton. The Susquehanna is used relatively little. The Allegheny and Monongahela Rivers, in the Ohio Basin, are the most largely used major streams in Pennsylvania. Pittsburgh uses the former.

Since all of these major streams are contaminated the supplies taken from them are filtered. Accordingly the matter of stream pollution is of much importance. Purification measures thus have played a large part in the development of Pennsylvania's water supplies.

Purification of Public Supplies

It is difficult to realize today, with filter plants in general use, that only 66 years ago the first real filter plant was built in the United States at Poughkeepsie, New York. From information recently gathered, it appears that at the beginning of 1931 in 41 states there were more than 1,500 filtration plants furnishing water to about 34 million people.

The records of Pennsylvania's early filter plants are meager, but it appears that in 1889 one, considered the first, was built at New Bethlehem, Clarion County. Three years later the next plant was built at Beaver Falls, with Gettysburg two years after that in 1894. The Harrisburg plant was built in 1905 and was extended in 1923.

The New Bethlehem plant had only one filter with a daily capacity of 150,000 gallons. At the beginning of 1935 there were 207 filtration plants in Pennsylvania, with a capacity of over one billion gallons daily, filtering and delivering to six million consumers 750,000,000 gallons of purified water every 24 hours.

Pumping Water for Drinking Purposes During a Drought

Following the year 1894, filter plants were built each succeeding year down to the present. The number installed each year varied from 2 to 16, averaging six yearly for this period of 35 years.

A word as to the kind of filters. In the early days of water purification large areas of sand, called slow sand filters, were generally used. But American practice quickly departed from this type and developed to a high degree the mechanical or rapid sand filter such as is found at Harrisburg. Notable examples of the slow sand filters are found in

Philadelphia and Pittsburgh, which together account for 525 million gallons daily. There are 16 plants of this type in Pennsylvania with a capacity of 650 million gallons daily. On the other hand, the State has approximately 180 rapid sand plants capable of producing over 400 million gallons daily or about 40 per cent of the total rated capacity of all the plants.

The filter plants are located in 49 of the Commonwealth's 67 counties. Where there are no filter plants there are chlorinated supplies. Consequently, there is not a single county in Pennsylvania which does not have either filtered or at least a chlorinated public water supply. A creditable record, indeed!

Germicidal Treatment of Public Supplies

The prevalent practice of treating public water supplies with a chemical germicide is of comparatively recent application. The year 1908 marks the first one in which chlorination was used on any large scale in the United States.

At the beginning of 1931 in 35 states there were 1,307 waterworks using chlorine as a purifying agent for the water served to 23 million people. To these should be added the 34 million people using filtered water, making a grand total of 57 million people furnished with purified water. In other words, roughly four out of five urban dwellers in this country are now supplied with water artificially purified in some degree.

Copper sulphate on the other hand had been used quite extensively both here and abroad. In Pennsylvania, under the direction of Doctor F. Herbert Snow, then Chief Engineer of the State Health Department, it was first used in connection with the typhoid fever epidemic at Nanticoke in 1905-1906. In the notable Scranton typhoid fever outbreak, 1906-1907, copper sulphate was used as a germicide in connection with the public water supplies. In succeeding years it was used at various times on unfiltered supplies, but generally in case of an emergency created by an epidemic.

The first use in Pennsylvania of chlorine on an unfiltered public supply was at Scranton on or about February, 1909, following quite closely its first full scale use in the United States.

In January 1911, a disastrous typhoid fever epidemic occurred in Erie, Pennsylvania, and late in the month (January 28, 1911), the water which was then taken unfiltered from Lake Erie, was dosed with copper sulphate as a germicide, also under the direction of Doctor Snow. This treatment continued until March 15, 1911, when chlorinated lime was substituted for the copper sulphate.

Subsequently the practice of using chlorine either in the form of chlorinated lime or chlorine gas, which latter is largely supplanting the former, extended slowly and in 1912 it was used on 13 waterworks.

That the growth has been rapid since that time may be noted from the fact that today there are nearly 400 waterworks using unfiltered water supplies treating the water with chlorine. These waterworks have installed 515 separate chlorination plants on their various supplies. The chlorinated supplies, in addition to the water furnished by the filtration plants, are furnished to 2¼ million people. The daily output totals 290,000,000 gallons. These chlorination plants are scattered over the entire State.

Armstrong County is the only one in the State which does not have at least one public supply which is chlorinated only and in that county there are public supplies filtered and chlorinated.

To summarize, at the end of 1930 Pennsylvania had a population of 9,631,350, of which more than six million used water both filtered and chlorinated and over two million used chlorinated water, not needing filtration at this time, a total of more than eight million people or 80 per cent of the citizens of Pennsylvania. The extension of such safe water to greater numbers year by year is coincident with the constantly decreasing typhoid fever rate and unquestionably has been an important factor in this decline.

The Unapproved Supply Frequently Is Dangerous—Avoid It

Refinements of Water Treatment

People are no longer satisfied with a safe water only. They are insisting on a palatable supply as well. It must be free from objectionable tastes and odors. By the same token a water must be reasonably soft, it must not corrode the plumbing nor stain the housewife's linen. Thus has arisen a new phase of water treatment either separate from or used in conjunction with filtration processes. It does not primarily affect the hygienic qualities of the supply but certainly promotes its acceptability for household use. This is a relatively virgin field. There are 28 water softening plants in Pennsylvania, mostly west of the Alleghenies.

Likewise much attention has been paid lately by waterworks officials to control measures in handling water containing taste and odor producing substances. This has always been a problem, especially in supplies derived from the larger streams. The drought of 1930 greatly aggravated this trouble due to the luxuriant *algae* growths and heavy pollution of the low streams by sewage and industrial wastes. Ammonia chlorine, prechlorination and activated carbon have proven effective in many cases.

Results

Probably the most potent factor in the reduction of typhoid fever and other waterborne disease has been the protection of public water supplies. Other measures, such as milk control, hospitalization, immunization, and perhaps more precise knowledge in handling the disease, have contributed, but it is more than a coincidence that extension of safe water service almost invariably parallels a reduced typhoid incidence.

In Pennsylvania, as elsewhere, many large outbreaks were ascribed to infected public water supplies. To mention but a few, we may cite the following:

Place	*Year*	*No. Cases*	*No. Deaths*
Plymouth	1885	1104	114
Butler	1903-1904	1348	111
Scranton	1906-1907	1155	111
Erie	1911	1078	131
Troy (This is a town of only 1400 population)	1912	232	19
Grove City (Typhoid epidemic preceded by probably 2000 cases of bacillary dysentery)	1914	201	16

In 1906 there were 3,917 deaths resulting from typhoid fever, a rate of 54.8 per 100,000 population. In 1934 there were only 125 deaths, equivalent to a rate of 1.3 per 100,000 population. This is a reduction of approximately 97 per cent. It represents a saving of thousands of lives. To safer water supplies cannot be ascribed the entire credit but, undoubtedly, from past experience, it is a reasonable assumption that safe water played no small part in this reduction

We should not conclude, however, that because of this splendid record the victory is won and the danger from typhoid fever is past. Someone has well said, "It should be borne in mind, however, that typhoid fever and other waterborne diseases are not vanishing calamities, but are merely controlled diseases which may recur at any time, if there is a break-down in operation of water purification systems." Eternal vigilance is the price of safety.

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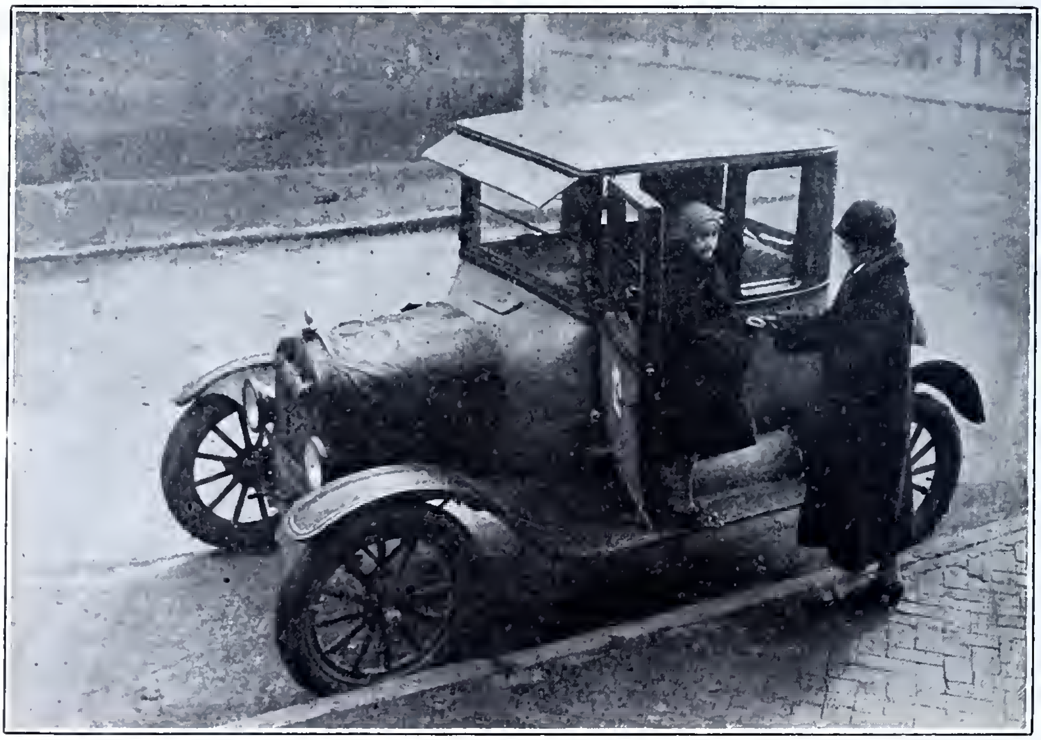
DEPARTMENT NEWS

THE ANNUAL CLEAN-UP CAMPAIGN—The State Departments of Health, Welfare, Forests and Waters and Bureau of Fire Protection, State Police, joined in sponsoring the yearly CLEAN-UP WEEK campaign which for a number of years has been on a state-wide basis. Reports reaching the Departments indicate that the reaction to this year's suggestions were sympathetically, efficiently and generally adopted.

However, the real credit for the success of this work goes to the chambers of commerce, the mayors, burgesses and the health officials who localized the campaigns with due inspiration and activity. Incidentally, the citizens themselves should not be forgotten in the praise, inasmuch as they whole-heartedly entered into the spirit of the movement. This has resulted in a satisfactory housecleaning for the respective communities, and conversely, a most unsatisfactory condition for filth-diseases and flies.

VISIT HOMES—Personnel of the nursing bureau last month visited 12,313 homes involving 17,800 patients. This activity was in connection with follow-up investigations of patients who had visited the tuberculosis, venereal disease, heart, and cancer clinics.



The Nurse Is an Essential Factor in the Public Health Program

DIPHTHERIA FIGHT CONTINUES—During the last four weeks 5,711 children were immunized against diphtheria under the Department's supervision. In addition, toxin-antitoxin was given to 20 patients suffering from the disease, while 1,823 received the Schick test to determine whether or not immunization had been successful.

The steady decrease of diphtheria among children in Pennsylvania is a major achievement. In 1906, 10,870 cases were reported with 2,438 deaths. Last year there were only 2,597 reported cases with 217 deaths. Earlier recognition by parents of symptoms which might be diphtheria thus leading to prompt diagnosis, state-wide cooperation on the part of parents in immunization, and the drastic application of the quarantine procedure can be credited for the present satisfactory situation.

However, 217 diphtheria deaths in Pennsylvania in the light of present-day knowledge and scientific prevention are exactly 217 deaths too many.

MAUSOLEUMS—Evidences that a revival in the construction of mausoleums in Pennsylvania has begun is indicated by the number of applications for permits for the building of such structures which recently have been submitted to the Department.

Before permits can be obtained for the building of mausoleums, plans and specifications must be submitted to the Department of Health and approved by its engineers. The approval is based upon an investigation of the plans themselves with particular reference to ventilation, drainage, sealing of crypts and location.

The law also requires that after the building has been completed a second permit must be obtained before applying it to its intended use. Plans and permits must, in addition, be filed with the Recorder of Deeds in the county where the mausoleum is to be erected.

According to the Department's records there are approximately fifty-three mausoleums now in use in Pennsylvania.

HEALTH VIA RADIO—The Department's division of health education has completed the preparation of 156 radio broadcasts on disease prevention and health information. These so-called "Health Hints" are now being broadcast from various radio stations in Pennsylvania on local hook-ups.

Moreover, a recent central office weekly service has been established by the Department. Members of the staff are cooperating in the presentation of fifteen minute broadcasts every Tuesday afternoon at 1:45 over WHP Harrisburg. Up to this time these presentations have been made by J. Clarence Funk, chief of the health education division, and Dr. Emlyn Jones, director of the bureau of vital statistics.

P. P. H. A.—For the second time in its history the Pennsylvania Public Health Association met in Harrisburg on May 21-22. The scientific sessions were largely attended and presentations were made by outstanding specialists, including representatives from federal departments and medical, nursing and welfare organizations.

The banquet which was held on the evening of May 21st attracted an unusually large audience. The speakers were Dr. C.-E. A. Winslow, of the Yale School of Medicine, whose presentation on the subject of "The Public Health Program—Past, Present and Future" was exceedingly interesting and instructive; and Dr. Reginald Atwater, Executive Secretary of the American Public Health Association. His address on the Functions and Limitations of Health Associations was also most timely and was very favorably received.

Dr. Edith MacBride-Dexter, Secretary of Health, presented formal greetings of the Department to the banquet audience, which was presided over by Dr. Paul A. Rothfuss, Deputy Secretary of Health, as toastmaster.

The next meeting of the Association will be held in May 1936.

SANITATION, BEER AND SPIRITS—The Department some weeks ago took action to enforce the law regarding sanitation in establishments selling beer and spirits. The drive was made to insure that glasses used in the dispensing of beer and liquors were being cleansed with soap and hot water after each use, as prescribed by the regulations.

Advice recently received indicates that officials of many localities, upon whom the burden of enforcing the law rests, have already insisted upon a strict enforcement.

Follow-up letters from the Department, as well as field surveys by personnel of the restaurant hygiene division, are being made in such cases and places where laxity yet exists.

Pigs Raised in Filth Are Nuisances as well as Likely Hosts to the Trichinosis Organism. This Piggery Was Destroyed under Health Orders

FEW CASES OF TRICHINOSIS—The bureau of health conservation recently reported to Secretary of Health Dr. Edith MacBride-Dexter that the usual number of trichinosis cases was not noted during the late winter months and early spring. While several cases of this disease were recently reported, only minimum trouble has been caused this year by this condition.

Trichinosis develops by the eating of uncooked pork or pork products of swine harboring the trichinosis organism. This is a worm of microscopic size which invades the system of a comparatively small number of pigs. The preventive against the possibility of acquiring this malady is a thorough cooking of all pork or pork products. Due to a constant educational activity in this connection the danger of using pork in a raw state evidently is being more generally appreciated than formerly was the case.

REGISTER AT VENEREAL CLINICS—During the last thirty days 7,500 patients were registered in the 68 venereal disease clinics supervised by the Department. Patient visits aggregated 20,606.

Of those receiving treatment 450 were babies suffering from congenital syphilis. To diminish this unnecessary penalty to child life an educational drive sponsored by the Department is now being conducted in the clinics and among welfare groups. Prospective mothers are thus being informed of the value of thorough physical examinations as soon as the expectancy is noted.

Much of the congenital syphilis can be avoided if maternal syphilis is discovered early and proper treatment is applied during the period of gestation. Thus, little children need not be victims of this terrible plight if science is given its fair chance to prevent it.

HEALTH COURSE—A short course was recently conducted for water and sewage plant operators at Pennsylvania State College. This activity was under the direct supervision of the engineering department of the college, but was sponsored by the Department.

Howard E. Moses, assistant chief engineer, and Raymond Hoffert, bureau engineer, were among the guest lecturers. All other instructors were from State College. Reports indicate that this course was well received.

ASKS COOPERATION—The Department recently advised school directors of the fourth-class districts to make every effort to keep in a satisfactory sanitary condition the 6,223 one-room school buildings still in use in Pennsylvania.

While the decreased budgets have embarrassed school directors not only in making repairs to buildings of this type, but in maintaining the sanitary standards, reasonable school sanitation which insures clean floors, fixtures, and an atmosphere free from dust and objectionable odors, is an important prophylactic measure.

MAINTAIN DRIVE AGAINST DOPE—The Department's narcotic division is continuing its intensive drive against the illicit narcotic traffic in cooperation with the Federal Government. This activity is the outcome of recommendations of U. S. Attorney General Cummings' crime conference. Nation-wide war to the finish against the illegal use and sale of narcotic drugs was then advised.

Several round-ups have been made in Pennsylvania since December 8th of last year when the first national offensive took place. For every day since that time approximately two narcotic traffickers have been arrested and convicted in Pennsylvania. This has resulted in an aggregate imprisonment of 300 years for the offenders. According to Dr. Edith MacBride-Dexter, Secretary of Health, the Department will continue this activity indefinitely.

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Vital Statistics Comment

TYPHOID FEVER IN 1934

Florence Hardy
Statistician

PENNSYLVANIA, in 1934, enjoyed a period unusually free from the ravages of typhoid fever. The number of cases and deaths was lower than in any other year of registration. For the first time in the State's history, there were less than a thousand cases reported, while the fatalities totaled only 114. The case and death rates per 100,000 population in 1934 were 9.7 and 1.1, respectively.

Of the 970 cases of typhoid fever last year, 561 or 58 per cent were recorded in the four months—July, August, September, and October. The lowest number of cases was reported in February. The highest mortality occurred in September, October, and November, with the fewest deaths in March. The case fatality rate for the entire year was 11.8 (deaths per 100 cases). The corresponding high monthly rates were: September, 13.2; October, 14.6; November, 16.0; December, 21.6.

Typhoid fever attacked more males in 1934 than females, and 93 per cent of all cases were white persons. More cases of the infection appeared in children between the ages of 10 and 14 years of age than in any other age group. The following table gives the morbidity from typhoid fever last year by age, sex, and color.

Age Group	*Total*	*Male*	*Female*	*White*	*Colored*
TOTAL	970	546	424	900	70
Under 1 year	3	3	—	2	1
1 year	7	1	6	6	1
2 years	13	6	7	10	3
3 years	21	7	14	19	2
4 years	23	11	12	18	5
5-9 years	135	74	61	127	8
10-14 years	187	113	74	179	8
15-19 years	130	73	57	120	10
20-24 years	116	57	59	109	7
25-29 years	96	59	37	90	6
30-34 years	51	28	23	43	8
35-44 years	86	47	39	79	7
45-54 years	53	38	15	52	1
55-64 years	30	16	14	28	2
65 years and over ..	14	9	5	13	1
Unstated	5	4	1	5	—

The provisional total of 114 deaths established an enviable low record for this disease. During 1934 only 34 of the 67 counties in the State reported typhoid fever deaths, and only 25 of the 102 localities over 10,000 population, registered fatalities from this cause.

Compared with the experience of past years, the mortality from the disorder at the present time illustrates the results of concerted effort to eliminate this hazard to public health. In 1906, there were 3,917 deaths reported, equaling a death rate of 54.8 per 100,000 population. If this rate had prevailed each year since that time, there would have been 138,193 deaths from typhoid fever in Pennsylvania instead of the 28,435 that actually occurred. There has been, therefore, a saving of 109,758 lives from this disease alone, in twenty-nine years. The magnitude of this saving is evidenced in the fact that it is equivalent to a city the size of Reading.

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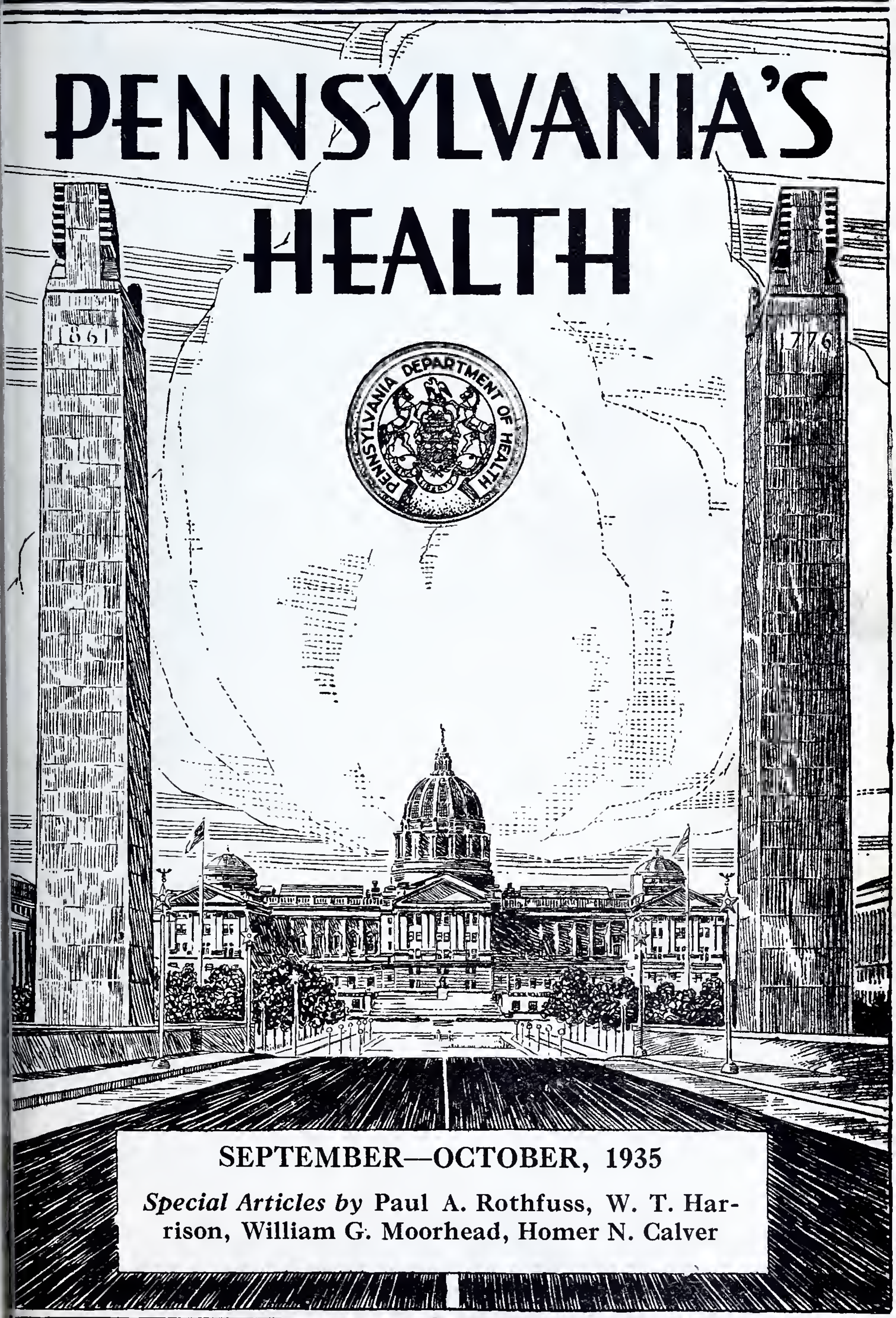

SEPTEMBER—OCTOBER, 1935

Special Articles by Paul A. Rothfuss, W. T. Harrison, William G. Moorhead, Homer N. Calver

PHE 1.17/4/7

Pennsylvania's Health

Official Bulletin of the Pennsylvania State Department of Health

EDITH MacBRIDE-DEXTER, M. D., Secretary of Health

J. CLARENCE FUNK, Sc. D., Editor

Vol. 13 Harrisburg, Pennsylvania, September-October, 1935 No. 4

"Acceptance for mailing at special rate of postage provided for in Section 1108, Act of October 3, 1917, authorized April 6, 1923."

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Published bi-monthly by The Pennsylvania Department of Health, Harrisburg, Pa. This Journal is free to the people of Pennsylvania. A request to the Editor, Department of Health, Harrisburg, Pennsylvania, will bring a copy of this magazine to your home without charge.

Editorial

ARE VACATIONS, VACATIONS?

THE summer holiday is a national institution. Every year, during July, August and September hundreds of thousands swarm the beaches, invade the mountain and lake regions, or take to the highway. It is the one time in the twelve-month stretch when a hiatus from work or business routine happily comes to the average American.

Enthusiasm for the two weeks' sojourn begins to smolder in January, shows decidedly red in the spring, and finally bursts into flame on the morning of the take-off. And, of course, enthusiasm is to be expected. As an inseparable complement to the event it is as natural as is breathing itself. The point to be stressed, however, is that the very logical super-keenness for the pleasures associated with this annual trek might well be tempered with more consideration than evidently exists today.

Consider, for example, sunburn. It is indeed difficult to understand why so many people will unduly expose their tender epidermis to the painful power of the sun. Certainly they know better. It is even quite likely they have been its victims on prior occasions. Nevertheless, under the lure of the "sad sea waves", they permit themselves to be caught again. At best the result is discomfort, at worst illness and a downright wrecking of vacation pleasures result.

Still others, who through experience or inclination are sun-shy, imagine that to sleep as little as possible, to eat more than they can comfortably consume, to smoke excessively, and in short, to burn up as much vitality as they possibly can, represents in combination a perfect vacation.

Now, if excitement, thrill and indulgence were the only matters to be considered, such a hectic program undoubtedly would suffice. But it so happens that large numbers of persons are quite burnt up, relatively speaking, before they start on their trip. What they therefore need is a measure of rest and relaxation, thus affording nature an opportunity to catch up to them. Indeed, it is about the only chance she has to do a much needed repair and reconstructive job.

Consequently, while there is no desire even to suggest that the real pleasures of a vacation be sacrificed, including a share of excitement, it might nevertheless be well for many persons who have not yet taken their fortnight's leave, to ask themselves this question "Will my vacation really be a vacation."

Not a little joy and a large amount of good are involved in properly answering this very personal interrogation.

J. C. F

PUBLIC HEALTH AND THE CITIZEN

Paul A. Rothfuss, M. D.

Deputy Secretary of Health

**Paul A. Rothfuss, M. D.
Appointed Deputy Secretary of Health
by Governor Earle**

THE amazing progress made in medicine within the living memory of adults has been reflected in the public safeguards now applied by health officials. Indeed, it truthfully can be said that never before in the history of man has he been so scientifically and effectively protected against the mass onslaughts of disease as he is today.

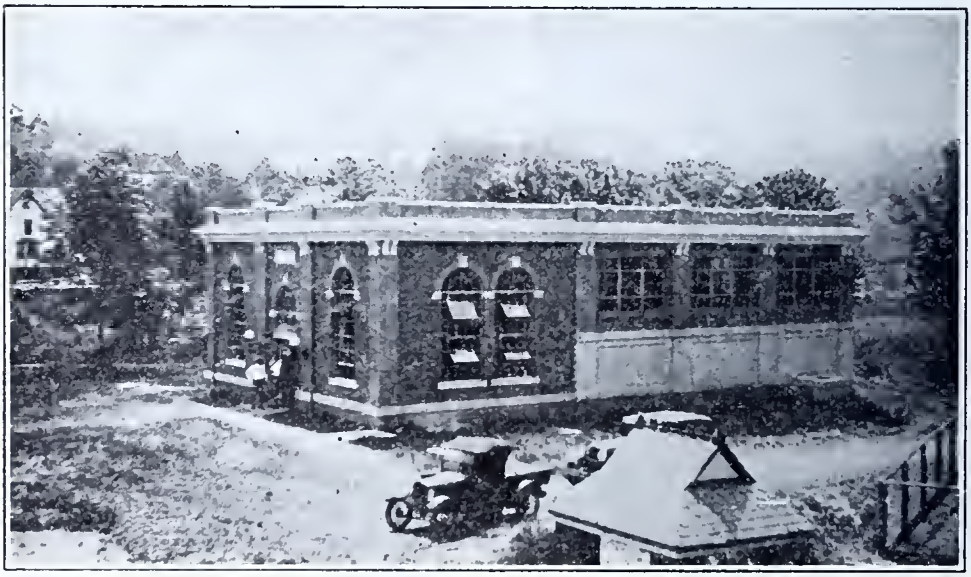
The control of the water and milk supplies, sewage disposal, vaccination against smallpox, immunization against diphtheria, food inspection, housing regulations, and many other measures have been spectacularly successful in reducing the killing power of a number of maladies that formerly took a terrific annual toll.

However, it is but natural that the average person perhaps does not fully appreciate what is being done for him through public health administration. He is likely to take his pure glass of water, his safe milk, and the various prophylactic measures much as a matter of course. And, in fact, he cannot at all be blamed for such an attitude. Scientists and preventive methods are not highly vocal. The very nature of the effort involved does not lend itself readily to advertisement or to an acutely developed public interest.

Nevertheless, the fact remains that a vast army of trained administrators and scientific specialists are ever on guard against conditions that, if left uncontrolled and unsupervised but for a few days, would possibly result in a flare up that would be disastrous to many. Eternal vigilance is the price of safety.

For example, it is difficult to realize that with filter plants now in general use, only 66 years ago the first real filter plant was built in the United States at Poughkeepsie, New York. Moreover, it was not until 1889 that the first plant was constructed in Pennsylvania, namely, at New Bethlehem, Clarion County. Today, in this Commonwealth more than 8,000,000 of its 10,000,000 population drink water that has been either filtered or chlorinated. And back of this tremendous control lies waterworks, sewage-treatment plants and a large number of specialized men who twenty-four hours out of the twenty-four are supervising, checking and rechecking to make sure that the water maintains the high standards of safety demanded by law.

Again, consider milk. Many of us can well remember when this fundamental food was completely unsupervised. Coming from untested cows that were milked under most insanitary conditions, it was peddled from door to door in large containers, and poured into receptacles that had stood unprotected from the dust and dirt from late at night until next morning. In the light of present day knowledge it is little wonder that thousands of babies died from "summer complaint", and older persons contracted typhoid fever.



A Filtration Plant is a Great Disease Preventive

Today, the resident of a borough, town or city is scientifically guarded against unclean and unsafe milk by a milk control program. This involves, among other features, regular inspection of the barns and stables, tests of the cows, physical condition of the milk handlers, supervision of receiving stations, pasteurization of the milk, sterilization of containers, and laboratory examinations for sampling and testing. In short, milk is protected all along the line. And this comprehensive guard represents the daily activity of hundreds of trained personnel who, like those supervising the water supplies, are constantly on duty.

Again, consider the pyrotechnical success of the anti-diphtheria campaign. As late as 1921, 1983 children succumbed to this malady in Pennsylvania. On the other hand, in 1934 only 217 died of this dread disease.

Thanks to toxin-antitoxin and toxoid as immunizing agents, and to antitoxin for the treatment of the disease itself, the fangs of this heretofore mighty disease reptile have been pulled. And back of this victory lies the careful planning, supervision and educational efforts of the public health official.

Tuberculosis, a few years ago topping the list of the major killers, now has been reduced to sixth place. Sanatorium treatment, earlier diagnosis, better housing, higher living standards, and the education of the public, all have played their important parts in this satisfactory fight. But back of much of this program also is to be found the health administrator who has joined forces with the laboratory and modern treatment facilities.

In the field of infant and school hygiene great forward steps also have been taken. Medical school inspection perhaps is one of the most constructive and economic health measures yet adopted. Through this means remedial defects are discovered, and by an efficient follow-up system, are corrected. Thus physical handicaps are removed, and the definite hazards of future serious impairment eliminated. Actually in terms of health conservation and dollars saved this procedure is of incalculable benefit.

Moreover, vital statistics, drug control, supervision of venereal public health menaces, and the effective application of quarantine are but a few other of the many mass control methods of dealing with disease and protecting health.

The Sun Gets in Its Healing Work at the Sanatorium

Thus, public health administration today represents a glorious cumulative achievement of which one well can be proud. But unfortunately for the people's welfare, in spite of its great power, it also has its very definite limitations.

For example, under the militant leadership of the State Department of Health, public health in Pennsylvania will continue to be administered to produce maximum health and maximum disease prevention for the maximum number, but there is a boundary over which a department of health and local boards of health cannot pass. It is the boundary of necessary personal health concern.

While it is true that in the past twenty-five years amazing aids to combat personal disease have been developed, that fact in no manner minimizes the obligation of every person to do everything that is reasonble to attain and maintain health.

Dr. Banting's discovery of insulin for the treatment of diabetes, Drs. Minot's and Murphy's investigations leading to the use of liver to combat pernicious anemia; the research of Drs. Swingle, Hartman, Steward and Rogoff that led to cortin for a cure of Addison's disease; not to mention a thousand other frontiers that have been advanced by workers in hospitals and laboratories, should be considered, indeed must be considered, as life-savers only in case of unavoidable disease accident.

Definitely it does not pay any one to assume a "Let-George-do-it" attitude. To develop an undue complacency, and thus rest under a sense of false security, is to display an unwarranted and child-like confidence. The old adage "God helps him who helps himself" is extremely applicable in this connection.

It follows that the individual citizen, to reap the benefits of public health administration, must be more concerned about his well-being than he is today. His program should involve a conscientious effort to abide by the living rules prescribed by nature, as well as a clearer conception of the value of a physician's services from a disease prevention standpoint.

Nature's rules are few and simple. First, sufficient sleep each night; second, food in proper amounts, neither too much nor too little; third, daily exercise in the open air; fourth, eliminating the excessive use of stimulants of all kinds, including tobacco, coffee, tea, and alcohol; and fifth, living to live rather than unduly and nerve-rackingly to worry and chase unessential will-of-the-wisps.

Finally, the private physician should be viewed as a periodic counsellor. To him, at least once a year, every adult should go for a physical check-up. The annual examination is the great bulwark against death dealing conditions of middle-life such as certain heart ailments, diabetes, nephritis and other so-called degenerative diseases. These maladies ofttimes sneak up on one, so to speak, and work unannounced, up to a certain point. It is during this period that they are discoverable by the trained diagnostic ability of the doctor. Frequently, if they are left to announce themselves through pain, they have so dug in that little but palliative measures can be employed.

The unfortunate increase in premature deaths of middle-age and beyond, in a measure at least can be credited to the public's lack of appreciation of the inestimable life-saving and disease-preventing value of the periodic physical examination.

In short, when the private citizen fully appreciates the benefit of public health administration and shows that appreciation by a reasonable personal concern for his own welfare, medicine, surgery, and science generally will be able to do their wonderful work with the utmost efficiency.

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The Health Gnome Says—

Dame Nature has a siren smile,
In the good old summer time;
Her sad sea waves and glowing sun
Have made many foolish, whine.

Somehow, some folks will not admit
That a summer sun is hot;
So they disport in it for hours
'Til their pleasure goes to pot.

Burned to a blushing, flaming red,
They suffer for their fun;
They mourn, they toss, and cry, and swear,
And blame the dear old Sun.

So, when you're on vacation,
Keep the sun in its proper place;
It will save you pain and misery,
As well as a blistered face.

J. C. F.

DIPHTHERIA PROPHYLAXIS

W. T. Harrison, M. D.

Surgeon, U. S. Public Health Service

DURING the past 20 years our knowledge of the immunology of diphtheria has progressed to such a point, and our methods of producing active immunity have been so perfected, that it can be said that any community may control the death rate from this disease. Numerous instances, both in the United States and in Canada, may be cited where diphtheria has been reduced from a communicable disease of major importance to one of little note. However, programs of active immunization against the disease, which have been of primary importance in producing these excellent results, must be continued—always with particular attention to the age group 6 months to 6 years.

When the attention of health officers was first directed to the feasibility of diphtheria eradication the Schick test had been developed, and it still remains a very important measure for use in epidemics. It is also essential when working with children older than 6 years to separate those who may contract diphtheria from those who will not. For active immunization, dependence was placed on toxin-antitoxin mixture. The formulae of the early mixtures contained larger amounts of toxin than those finally developed, ranging from 5 L + doses downward until finally as little as 0.1 L + dose was used. With the development later of more active and safer products, toxin-antitoxin mixtures have been practically abandoned, now being marketed only for the use of a very small group of the medical profession who dislike to alter a procedure which has been reasonably satisfactory. The superiority of toxoid over toxin-antitoxin mixture is almost universally acknowledged among health officers and immunologists.

Advantages of Toxoid

At the time of the introduction of toxoid by Ramon, its absolute freedom from residual toxicity and from small amounts of foreign serum were widely acknowledged as points of definite superiority. It was soon determined, after considerable usage, that toxoid was also a more powerful antigenic agent. And what was of great importance, it appeared to produce active immunity with greater speed than did toxin-antitoxin mixture. Its value in immunizing children in the presence of an outbreak of diphtheria was therefore immediately apparent. Moreover, because of its entire lack of toxicity it produces no reaction in children not hypersensitive to diphtheria protein. Since young children are usually not sensitive, toxoid immediately found its widest usage in the age group which most acutely required immunization, namely, in children up to 6 years of age. Diphtheria toxoid is prepared by adding a small amount of formalin to strong toxin and applying a low degree of heat for several weeks. The toxic properties of the toxin are completely destroyed but the immunizing value is not affected.

In 1931, Glenny and Barr (1) treated toxoid with a solution of potassium aluminum sulphate and found that the precipitate which separated out contained practically all of the immunizing substance but that much of the nitrogen of the original toxoid was left behind. The precipitate when injected into animals was very active in the production of antitoxin.

The Research Worker is One of the Most Valuable of Men

Wells, Graham, and Havens (2), following the work of Glenny and Barr, prepared alum precipitated toxoid and injected it into susceptible children. They found that well over 90 per cent of Schick positive children were rendered Schick negative by one injection. The enormous advantage of a one-dose immunizing procedure was immediately apparent to health workers, and the acceptance by the profession of alum precipitated toxoid was practically instantaneous. The difficulty of securing the attendance of children for a second or third dose in an immunizing series is very well known, and the saving in time, with increased efficiency, of the health officer's personnel became obvious immediately. Alum precipitated toxoid is in turn rapidly supplanting original toxoid in the United States; and this, in spite of more or less difficulty with unpleasant reactions which followed its rather rapid introduction to the profession based upon an immediate demand.

Strong toxoids are treated with not more than 2 per cent potassium aluminum sulphate and the precipitate which forms is washed with physiological salt solution to remove inert nitrogenous substances. The washed precipitate is homogenized and made up to the original volume with salt solution to which a preservative has been added. The process of manufacture is controlled from the original toxin, which must be of certain minimum strength, through to the final product. The human dose must cause to be produced in the guinea pig not less than 2 units of antitoxin per cubic centimeter of blood in not more than six weeks. A product of such antigenic value has been found to immunize by a single injection approximately 95 per cent of Schick positive children.

Following injection of precipitated toxoid in children, a small nodule is formed in the subcutaneous tissues which persists for from four to six weeks. It is believed that this slow absorption is principally concerned in the very high antigenic efficiency of the product. The writer (3) has attempted to test this theory by removing the nodule at varying intervals from the tissues of guinea pigs. It has been found that nodules removed as late as seven weeks were still antigenic when injected into fresh pigs. The nodule could not be found with certainty after a longer period. Since nodules removed at weekly intervals from 1 to 7 weeks were found to produce antitoxin in fresh pigs, it seems reasonable to assume that the precipitate is antigenic in the tissues of the child as long as it may be detected, and that this factor is largely responsible for the effectiveness of a single dose.

Sensitivity Tests For Adults

In young children this nodule which persists at the site of inoculation is usually painless. As a rule it does not attract the attention of the child or parent. In older children and in adults, however, reactions more comparable with those following crude toxoid may be encountered. For this reason, toxoid, either precipitated or unprecipitated, should be given in reduced dosage to persons showing sensitivity to the proteins of the diphtheria bacillus. Such individuals are very rare under six years and to these alum precipitated toxoid may be given with the expectation that an unpleasant reaction seldom will follow. Older children and adults should be tested for sensitivity before injection. This test may be carried out simultaneously with the Schick test, which should be done in children over six years. Persons showing sensitivity to toxoid should receive reduced dosage, depending upon the degree of sensitivity. Such persons are usually immunized with less difficulty than non-sensitive individuals since hypersensitivity is of itself evidence of former contact with the diphtheria bacillus.

Natural Immunity

Under normal conditions, in urban centers, it is estimated that approximately 80 per cent of the population will naturally become immune to diphtheria between birth and adult life. During this period of natural immunization one person will contract clinical diphtheria for every four persons who become immune; the mortality will depend upon the virulence of the infecting organism and the resistance of the individual. As a general rule, the older the patient the less danger from diphtheria since resistance increases with age. When children are immunized by artificial means, *i. e.* toxoid injections, they are having done for them only what they will do for themselves if left alone; but artificial, active immunization is free from the danger of clinical diphtheria and can be done early in life when the danger from clinical diphtheria is greatest. Immunization should be done early, as soon after age six months as possible, and may be done without prior Schick test in children under six years. After six years it is probably best practice to Schick test and test for susceptibility to toxoid both to remove immunes from the group to be immunized and to regulate the dosage in susceptibles who are sensitive to toxoid. Such a program, intensively applied, will without question remove diphtheria from the list of dangerous diseases of childhood.

A small percentage of immune children as shown by blood titrations and Schick test will relapse from the Schick negative to the Schick positive state, but diphtheria in such persons is usually a mild disease. Children who become immune by natural means seem to relapse with as great frequency as those rendered immune by toxoid injection, but the immunity mechanism of both will prepare antitoxin with sufficient rapidity to protect against a new infection. In view of this knowledge, we may say that for practical purposes a child once rendered Schick negative will thereafter be protected against a fatal outcome even if, as so rarely happens, clinical diphtheria should develop.

The rapidity with which toxoid acts to produce an active immunity to diphtheria tends to render unnecessary the use of prophylactic antitoxin except in unusual circumstances. Very young children in whom the diagnosis is difficult, or older children who are not subject to close observation by the physician, may be protected by 1000 unit doses. However, with the Schick test to determine who may contract diphtheria, and a method for the rapid permanent protection of these, the use of prophylactic antitoxin should be reduced to the exceptional condition.

Antitoxin For Treatment

While rapid improvement has been made in the development of active immunization to diphtheria, much progress has also been made in the production of antitoxins for treatment. Antitoxins have been greatly increased in units per cubic centimeter thus reducing the volume for injection and permitting the use of larger doses while the cost per thousand units has been greatly reduced, thus permitting more intensive treatment at less cost. The manufacturers have so adjusted their production to demand that ample reserve stocks are constantly on hand to insure proper aging of antitoxin before marketing. The loss of unitage is greatest in antitoxin recently removed from the horse, hence the necessity for production greatly in advance of need in point of time. The unitage of all antitoxin is measured by a standard unit distributed by the National Institute of Health of the Public Health Service and sufficient excess is placed in each package to insure that the package will contain the stated unitage at the time of expiration stamped on the label. As a matter of fact, at the time of expiration the package still contains more units than is stated on the label.

In the treatment of diphtheria the patient should be considered as containing an unknown amount of diphtheria toxin which must be quickly neutralized, the amount of antitoxin to be given determined and given at one dose. It should be remembered that to err on the side of too much antitoxin is safe since excess units are harmless while too small a dose is dangerous. Therapeutic antitoxin should be given intramuscularly except in severe cases of malignant diphtheria, when it should be given intravenously. Antitoxin should never be given subcutaneously except for prophylactic purposes, when slow absorption and excretion are desired. In treatment, the object is to produce as high a concentration of units in the blood of the patient as is possible with the dose injected. Obviously, the highest concentration will be obtained when the antitoxin is injected directly into the blood stream, next highest following intramuscular injection, and the lowest following subcutaneous injection. To reduce the case fatality rate, antitoxin should be given early, while awaiting bacteriological confirmation of the diagnosis, and in large doses. American antitoxin is potent. Therefore, when seeking to explain failures in treatment one should first look elsewhere than to the antitoxin for the explanation.

We have a method for determining susceptibility to diphtheria, for rendering susceptible persons immune, and for neutralizing the toxin in one ill with the disease. Intelligent, intensive use of these products should cause diphtheria to occupy a place comparable to smallpox as a cause of death.

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PROGRESS IN THE SCHOOL HEALTH PROGRAM*

William G. Moorhead, M. P. E.

Director, Bureau Physical Education
State Department of Public Instruction

FIFTEEN years ago, Pennsylvania established a recognized state program in the field of health and physical education. These fifteen years have witnessed a steady progress in its development. With 200 teachers of physical education employed in the public schools of Pennsylvania in 1920, this number has been increased until today there are 2000. In point of numbers, it is the largest group of special teachers, followed by the commercial group with 1900, and industrial arts with 1500. In 1920, a program of physical education was to be found in only 25 districts while today that number has increased to 575. With reference to the preparation of well qualified teachers in this field, there are this year 1222 students enrolled in 4 year professional courses in colleges of the State, 330 of whom are graduating this year.

This progress is even more significant when we consider that public opinion concerning the functions and purposes of a school have always been conservative. New subjects have not been accepted readily. The emphasis upon the so-called intellectual functions of the school still persists, and even today to many, the word "physical" arouses the old subtle contrast to the word "mind". L. P. Jacks has stated it very well when he says, "There are too many of our educators who seem precluded, as by a law of nature, from conceiving that anything can possibly be educational unless it is mediated by a book, accepted in a sitting posture, and tested by an examination or that physical education can be anything else than helping the pupil to stretch his limbs thus improving his digestion and so be in better shape for sustaining the persecution of the classroom."

Physical Education

Even today there is undoubtedly no other field that is so much in need of educational interpretation to the general public than is that of health. Such interpretation, if it is to come at all, must necessarily come largely from the program itself—its purposes, its content and its objectives. In order to provide such a program we have asked of the schools that they give us these three minimum essentials:

1. Ample and adequate facilities both indoors and outdoors.
2. Sufficient time in the school day to do a real job.
3. The employment of well-qualified teachers and nurses.

In response to this request facilities and trained leadership, both nurses and teachers, have been provided in reasonably generous measure. Millions of dollars are being spent each year for facilities and for salaries. Approximately 12 per cent of the cost of all high school construction in Pennsylvania for the past 15 years has been spent for gymnasia, pools, showers, locker rooms, and equipment (over three million dollars for salaries). The time allotment in physical education, however, is still inadequate and we are having to accept a minimum program of but two periods a week when the very minimum allocation should be at least one period each school day.

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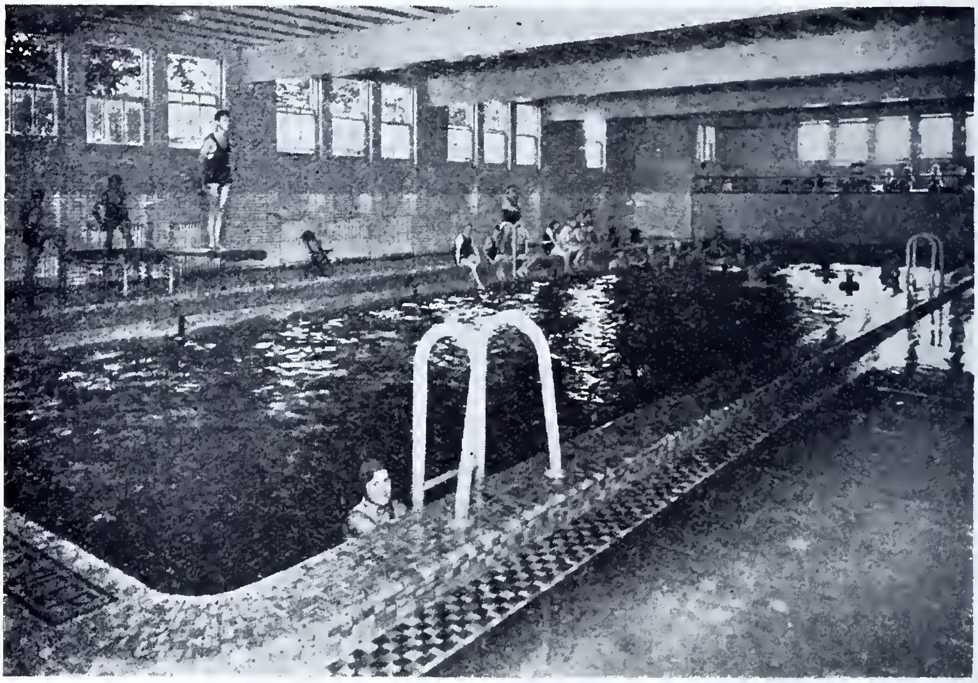
* Address delivered before the 11th Annual Session of the Pennsylvania Public Health Association.



Swimming Pools Geared to Health Programs are Invaluable

Having been given facilities, trained leadership, and a minimum time allotment, the immediate problem is concerned with our program in physical activities. We are now asking our teachers for a graded, sequential program—one based on individual needs and based upon the latest educational methods and procedures.

In the development of such a program, we are thinking of it in terms of *quality* rather than in terms of *quantity*. For example, a certain number of periods a week under well qualified teachers, in well-equipped gymnasiums will not alone guarantee a good program. If they are to be effective, the materials of instruction must be so well organized that they will lead to the realization of very definite social objectives. The classes that come to the gymnasium in any one group should be of the same school grade, and in numbers consistent with good teaching. I appreciate the fact that the too frequent policy in programming which sends the child to the gymnasium whenever he has a free period, and disregarding grade placement, makes a good program impossible. The program should consist of a great variety of activities, selected and based on the *physical*, *emotional*, and *social* needs of the pupils rather than one or two games a season. Basketball, for example, is not enough. No one activity should be chosen that does not offer the opportunity for every child in the class to participate all of the time for the entire period. A contributing factor to this situation is to be found in the fact that each teacher enjoys teaching that activity which he or she does best and it is too frequently found that they are teaching their "major interest" to the exclusion of all other activities. We must avoid such over-specialization.

Full use should also be made of all facilities that are provided and that will add to the value of the program. For example, many school districts provide adequate shower facilities for girls only to find that they are not used. If time permitted, I could cite many similar instances of failing to use available facilities.

Athletics

Controversial as is the subject of athletics, its problems, if they are to be solved, must be solved by our teachers of physical education and our educational leaders. I am not an apologist for the abuses which have crept into their administration. Our state high school athletic associations and the National Federation are doing much to eradicate them. Nevertheless, there is still much to be done. The general public, those who are supporting athletics through paid admissions, is not enough concerned, unfortunately, with the health of those participating. Their knowledge of athletics is gleaned from the newspapers and by attendance at games. Their interest is in the winning team and the so-called star athlete on the team. Because of this interest of the sports loving public, our students and school men have permitted themselves to become too much concerned with athletic supremacy.

The one and only standard of measurement is all too frequently *winning* athletics. It has become, in too many instances, solely a means for public entertainment—a student amusement activity—promoted for the benefit of the general public who know little and care less about educational objectives. They are simply looking to the school as an agent for providing them with the spectacle of athletic competition. Looking at the entire problem from an individual and community point of view, there are three important factors to be considered. First, the participant; second, the school; and third, the general public. I have mentioned these in the order of their relative importance. In practice, however, we have too frequently reversed this order and are giving entirely too much attention to the wishes of outside interests and supporters and not enough to the boy or girl participating.

We hear much these days with reference to over-emphasis in athletics. What really has happened is that we have placed the wrong interpretation on conditions. The schools are not suffering from an over-emphasis on sports and athletics, but rather they are suffering from an over-emphasis of its commercial implications and the importance of victory. The condition we should be decrying is the lack of participation in athletics by the majority of students, both during their years at school and afterwards. Our greatest challenge today, from the community point of view, is to promote a program of athletic participation for the majority of students in our public schools that will carry over into adult life. With the six hour day and the five day week just over the horizon, we should, above all others, be in a position to make a real contribution to the leisure time program that has come upon us so suddenly and which is demanding our immediate attention.

Health Instruction

With reference to health instruction, one prominent physician has said, "We should organize our program of health instruction through education of the individual child and parent, not alone in regard to factual material, but by utilizing every situation, both in the home and in the school for the development of correct attitudes and practices." This should be one of the chief objectives of our program in health instruction in the elementary schools, but it seems to be the one thing that is the most difficult to accomplish. Unfortunately, the demand from teachers is, in most cases for more content—more textbook material—rather than employing natural situations to drive home the important lessons in health.

As soon, however, as we get away from textbook slavery, there are other problems arising which are equally serious. One of these appears under the guise of "motivation," apparently based upon the philosophy that "the end justifies the means." Thousands of children are being weighed and measured each year and their weight judged by an arbitrary so-called "normal" standard, which upon sober thought has very little justification. Gain or loss of weight over a period of time is the one factor that is important. Again, in the selection of the materials of instruction we have too frequently accepted any material that will make the teaching easier and the subject more interesting. Even our best literature has been changed beyond all recognition to make "a Roman holiday" for our health rhymesters and by those to whom no literature is sacred if it can be used to "teach a moral or adorn a tale."

Recreational Sports in the Entire School Population are Needed

Another motivating device is that by which the child is asked to check his own health habits or practices and report to a teacher whom he wishes to please and whose disfavor he fears. We should be most careful not to set up procedures of which the results, in other respects, are more serious than the conditions they are designed to correct.

Interest in health instruction and health service, so widespread and fruitful in elementary education has, generally speaking, hardly touched the secondary field. A leader in educational thought has this to say concerning the need for such a program: "When a community assesses its secondary program in terms of health and good social adjustment of its high school graduates rather than in terms of their ability to pass college entrance examinations and survive the freshman year, we shall see a prompt right-about face in the high school attitude toward a health program. Of all our local non-profit institutions, high schools respond most quickly to local demands. The first step in encouraging a high school health program is to build a community demand for it, and an appreciation of its importance."

To summarize briefly, more time should be provided in the school program for physical education, and more effective programming should make it possible to send children to the gymnasium at least by grades and in numbers that will permit effective teaching. We need a more intelligent program of activities more intelligently administered with more emphasis on activities with carry-over values; a program built upon the needs of the community rather than upon the momentary inspiration of the teacher. In the conduct of our athletic program, our first concern should be the health of those participating. Heart disease and tuberculosis are altogether too prevalent at the high school age. The mortality figures for the latter, for all ages, shows a 50 per cent decrease but only 25 per cent for ages ten to nineteen. Examination of 30,000 high school pupils in Pennsylvania revealed that 30 per cent reacted positively to the tuberculin test of which 3 per cent were active cases. In one community, 34 candidates for the track team were given the tuberculin test, 13 reacted positively and the x-ray examination showed that 3 had the disease in active form, one of whom was a far-advanced case of pulmonary tuberculosis. Dr. R. H. McCutcheon, formerly medical director of the State sanitarium at Mont Alto makes this statement: "To permit tuberculous or seriously infected children to engage in competitive athletic sports may be little short of murder."

No high school should permit its pupils to engage in competitive activities unless it is positively known that they are not seriously infected by the tubercle bacilli. Ignorance of the child's true state of health can no longer be excused on the part of school boards or school health authorities. Strain and subsequent fatigue are undoubtedly contributing factors, and it is significant that at the high school age, children are subjected to mental, emotional, and physical strain. Our over-crowded school program with its extra curricular activities must assume much of the responsibility for these conditions.

Our medical inspection program should show a change of emphasis from mere detection of defects to a more effective program of correction. One community in our State reports 688 cases of remediable handicaps among its school children with only 50 corrections. The more serious of the health handicaps noted were 108 with defective vision, decayed teeth 350, diseased tonsils 230. When considering school costs with regard to money expended for "repeaters" because of physical handicaps, what could be more effective from the community standpoint than the correction of these defects rather than the elimination of certain so-called "fads and frills?"

A NEGLECTED OPPORTUNITY FOR THE CONTROL OF RESPIRATORY DISEASE*

Homer N. Calver

Secretary, Public Health Committee, Cup and Container Institute

IT IS desirable, from time to time, to take counsel with ourselves and examine the appropriateness of our activities. In such a stocktaking there are three simple practical criteria which are sound and which any health officer can use in determining where to direct his major efforts.

The first criterion is that of disease prevalence. If there were no other factors to be considered, these figures would at once clearly determine our attack. However, important as these figures are, this criterion cannot be used alone because we do not have any known means of effective attack on some of these rates.

The second criterion, therefore, is what are the known effective procedures. If this criterion alone were rigidly applied, our program would be quite elemental because there are, in fact, only a few procedures that are infallible.

In addition to these two scientific criteria, there is a third practical consideration which the professional man is frequently apt to minimize. That is the criterion of public opinion. Since we derive our support from public funds, we must do some of those things which the people who support us think we should do. Only in this way can we get continued support to do the things we want to do, pending that happy time when, through sufficient public education, the things we want to do and the things the public want us to do become identical.

The Criterion of Statistics

Applying the first of these criteria to our local public health picture, we find a large group of diseases high in the list of causes of death, disease and disability. They are the so called respiratory diseases. Most workers believe that all of these diseases are communicable; yet nothing done so far has had any considerable effect on their communication. We believe that all of these enter the body through the mouth; yet in our public health procedures we have constructed almost no barriers to this route of infection. We believe that most of them are principally infectious in their early stages; yet we are surprised because quarantine and other post-symptom measures have so little effect. According to the criterion of statistics major efforts of the health department should be directed to the control of respiratory diseases. An opportunity to conquer just one of these diseases as we have conquered yellow fever, cholera, typhoid fever, and diphtheria is a great opportunity. Any possibility of controlling all of them is worth serious consideration.

Waiting on the Laboratory

This brings us to a consideration of the second criterion—What can we do about the control of respiratory disease? In facing this challenge let us examine our current measures of attempted control. They can be classified under four headings: *education*, *quarantine*, *medical service*, *sanitation*.

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*Presented at the 11th Annual Meeting of the Pennsylvania Public Health Association.

In view of the tremendous task to be done—overcoming prejudice inertia and ignorance—changing habits of thought and actions of 120,000,000 people, the public health education program in this country has been very weak. Until funds for public education have increased many fold and our techniques have become more certain, progress by the educational route will be slow.

Control through quarantine and isolation has been disappointing. Most of the respiratory diseases are infectious in their incipient stages; many occur in mild form and are never diagnosed or reported; carriers play a part in the dissemination of some of them. Quarantine and isolation of the cases actually diagnosed and reported therefore segregate only a part of the potentially infectious population and this part temporarily, too late, and usually incompletely.

Medical treatment and nursing care of diagnosed cases reduce the infectiousness of the attacked individual and may have a material effect in reducing the incidence or seriousness of after effects, postpone death, and thus are quite definitely public health measures. They do not in themselves, however, furnish a program. The control of respiratory disease through sanitary measures has seldom been tried thoroughly in a sustained manner. While waiting for the laboratory to discover a readier measure of control, this may offer a fruitful means of attack.

The Laboratory is Unceasingly on the Job

Sanitation as here considered means the establishment of procedures wherever possible to prevent the mouth discharges of infectious persons from being taken up by others. The health officer has it in his power to interpose barriers to this salivary exchange in his supervision of public places serving food and drink. It is his only important point of attack. Furthermore, he is the only person who can erect and maintain this barrier. The problem is complicated by the tremendous increase of public eating places, particularly of the rush order or counter type, and the hostility of food and drink dispensers to any program that requires them to spend money. A recent and serious factor is the return of the saloon, or as we politely call it, the tavern. There is a tradition among bartenders that beer glasses should not be washed.

It is not Enough That the Water be Safe—How About the Glasses?

This is fostered by the brewers. With beer dispensing leading the downhill parade, vigorous action by health officers is called for if the gains which have been made are to be preserved.

The U. S. Public Health Service, the American Medical Association, and countless health authorities have reiterated that the commonly used unwashed drinking glass or other drinking or eating utensils may transmit infections; yet by and large, we have really done very little to eliminate the common drinking cup as it is seen at soda fountains, roadside stands, and quick lunch counters. A dip and splash in a tank of dirty water does not sterilize, yet this is about all the washing which most of our eating and drinking utensils get in many public places serving food and drink today. If we do not take this situation seriously, we cannot expect the public or the dispenser to do so. Here is a statement from a news release of the health department of a large city; "At the larger resorts two men are on duty night and day and they see to it that hamburger and hot dog stands keep meats and breads from possible contamination. Glass washing and the scalding of all dishes and cutlery is closely watched by these inspectors." But when an able and distinguished health officer makes a solemn statement of this nature and a child can see that the situation is otherwise, he invites the purveyor's disrespect of the law and dulls the sanitary sensibilities of the public.

There is no insuperable impediment to the sterilization of public eating and drinking utensils. The problem has been partly met in some places by the use of individual cups made of paper which are used once and thrown away. But where individual service of this kind is not desired there are available dishwashing machines of all sizes which effectively cleanse and sterilize. If this equipment cannot be afforded there are inexpensive means of sterilizing by hot water, steam, or chemicals.

The importance of sterilization of commonly used eating and drinking utensils has been shown by many investigators. The studies by Cumming, and by Cumming and Lynch, on the transmission of influenza in army camps are particularly thorough and significant. Nevertheless there is still a great need for continued research in this field.

There is need for a simple standard method of laboratory examination by which the health officer can determine whether or not a dispenser of food and drink is obeying laws and ordinances. A standard method of examination of wash water or of dishes which could be used as a routine, such as we have for the examination of water and sewage and milk, would be most helpful in enforcement and would aid materially in comparing the results of various investigators in this field. These are problems which are particularly appropriate for the State Health Department and the Universities working in co-operation with local health officers.

The state or national health authorities may well take the leadership in the development of model laws and ordinances. The present legal situation is analogous to that which existed in the field of milk sanitation before the adoption and promulgation of the model milk code by the United States Public Health Service.

In the meantime much can be done under existing rules. With the limited inspection service which most health departments have there is all the more need for focusing this service on the most important tasks. Too often the inspector spends most of his time in observing and reporting on cleanliness of walls and floors and ceilings, whereas the habits of employees and the thoroughness of dishwashing have a more direct relationship to the prevention of disease.

The present offers a unique opportunity for concentrating on this task through the use of relief workers. The city of Chicago has recently added 200 inspectors to its staff by this method. The use of more inspectors well trained for their jobs and focusing their efforts specifically on points of danger offers health officers another possible means of controlling respiratory diseases. To reach this objective requires more than a mere overhauling of the inspection service, it requires a completely new approach which will recognize the dignity of the task.

Finally, there is a fourth weapon which can be used with little expense, namely publicity. Most of the things a health officer does are unobserved by the public. They can see no tangible evidence of his activity. The sanitary condition of public eating and drinking places is a matter of almost daily concern to a large number of the health officer's public. This latent interest can be mobilized behind the health officer. Indeed, the health officer who takes the opportunity for leadership of this kind will win for himself a measure of esteem and approbation which should carry over his whole program.

This brings us back to the third criterion for determing a program—public opinion. There is an unmistakable tide in modern America toward a higher standard of living, toward cleanliness, away from dirtiness. The situation which exists in public eating and drinking places, particularly soda fountains and other counter service places, is an anachronism. It is on a par with the common drinking cup in railroad cars, and spittoons in the office. The people sense this but not knowing how to change it they accept it, as the older generation accepted the open privy, and make jokes about it. The health officer can capitalize on this latent public feeling and build good will for himself, his department and his city administration. There is reasonable evidence to indicate that it offers a measure of opportunity for the control of respiratory disease.

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DEPARTMENT NEWS

HEALTH TESTS FOR CHILDREN—Examinations of preschool children who entered school for the first time in September were conducted under plans formulated by the Medical Society of the State of Pennsylvania, the Emergency Child Health Committee, the Pennsylvania Congress of Parent Teachers, the Department of Public Instruction, and the Pennsylvania Department of Health. It is estimated that 160,000 children were the recipients of this protective drive which was aimed at the discovery and removal of physical handicaps, the immunization against diphtheria, and vaccination against smallpox prior to school entrance.

The cooperative plan adopted by the agencies involved either the examination by the family physician in his own office, or group examinations held in connection with the summer round-up program developed by the Parent-Teacher Associations, or examinations conducted under the auspices of the County Emergency Child Health Committees. Follow-up work was conducted to assure that the remedial defects had been corrected.

The end results of these combined activities literally are incalculable. Certainly the young Pennsylvania children are most fortunate in this official and community solicitude.

INCREASE IN HEART DEATHS—Heart disease as a public health problem is emphasized by recent figures issued by the Department's bureau of vital statistics. Adults must take a more rational viewpoint of their general living habits, according to Dr. Edith MacBride-Dexter, Secretary of Health.

"In 1906, 9533 deaths from heart ailments were recorded by the Department of Health," said Dr. MacBride-Dexter. "Last year, 26,311 fatalities were attributed to this cause. Figures reported so far during 1935 indicate no let-up in this situation.

"At the present time heart disease deaths constitute over 24 per cent of the annual mortality from all causes. Each year one in every four deaths of all ages has a cardiac disorder back of it; and one in every three deaths of persons 55 years of age and over is due to this cause.

"These figures speak for themselves. Unfortunately, except from an educational standpoint," continued Dr. MacBride-Dexter, "public health officials are not in a position materially to fight this situation. Undoubtedly the lack of personal interest for one's physical welfare, as displayed by the average person of 45 years and over, is a real factor in the discouraging upward trend of the heart disease mortality rate.

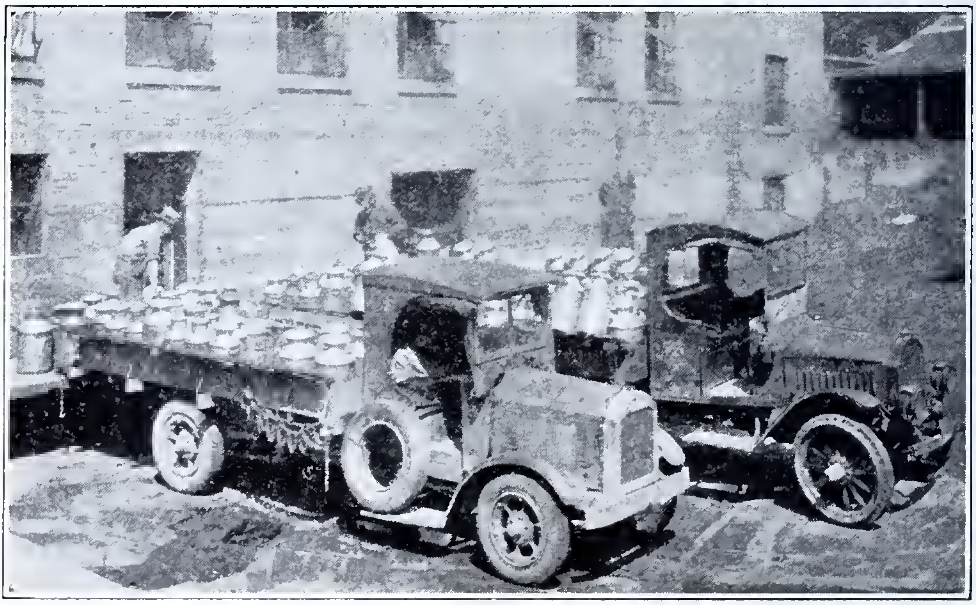
"To abide reasonably by nature's laws and, in addition, to undergo a thorough physical examination by the family physician at least once a year, are phases of health protection and disease prevention that cannot safely be overlooked by those who do not want to become premature victims of the deteriorating processes that frequently involve the later years.

"It can safely be said that if a fair sense of cooperation between the individual and the family physician to attain and maintain health could be developed, the present large number of deaths due to heart conditions could be materially lessened."

Oldsters and those approaching that group, please observe!

INSPECT FARMS—The semi-annual inspection of farms in the Pennsylvania milk shed, which includes Pennsylvania and the eastern shore of Maryland and Delaware, has been under way for some time. New farm inspection forms have been prepared by the Department; they standardize investigations of all farms producing milk for pasteurization and are being used by the local inspectors. These investigators, while employed by the milk dealers, are approved by the Secretary of Health.

Investigations this year emphasize cleanliness and milking methods rather than the type of equipment used. Fifty thousand farms are involved in this activity, exclusive of those in the Maryland and Delaware districts. Three hundred and fifty inspectors are engaged in this work. Representatives from the bureau of milk sanitation are acting in a supervisory capacity, and at a later date will check the reports.



Milk is Now Supervised From Source to Consumer

ANTITOXIN IN FEWER PLACES—S. G. Purvis, chief of the Department's biological division, recently announced that the number of distributors of biologicals in this Commonwealth has been reduced from 759 to 430. Greater accessibility to the stations due to the marked improvement of roads is given as one of the reasons for the change. Moreover, the efficiency of toxoid and tetanus and diphtheria antitoxin depends on adequate refrigerating equipment; this also was a factor in the reduction.

MEASLES DECLINING—The German measles epidemic which has been rather acute in many sections during the last few months is now definitely on the wing, according to Dr. Paul A. Rothfuss, Deputy Secretary of Health. The Department, however, advises that all cases of German measles yet under quarantine be conscientiously controlled.

"The fact that the German measles epidemic is materially diminishing gives no one an excuse to break quarantine regulations, or violate any safeguards for the spread of the disease that have been raised by public health officials and the family physician," said Dr. Rothfuss.

"While there is every indication that the German measles wave was reached quite a number of weeks ago, this is no excuse for the development of a false sense of security against the probability of this disease reasserting itself. Intelligence of parents and strict adherence to public health regulations are just as important at this stage of the situation as they were when German measles was at its height."

NEED FOR WATER PURITY—A warning to the motoring tourists to avoid drinking water from sources of doubtful purity was issued by the Department some time ago.

The typhoid fever problem in Pennsylvania, thanks to public water supplies, sewage systems and supervision of milk, is now practically a rural one. Were it not for contaminated water supplies yet sporadically existing in isolated sections, typhoid fever for the most part would be history in Pennsylvania.

Under no circumstances should tourists or campers use creek water for drinking purposes. If any question regarding the safety of the supply arises, the water should be boiled or one drop of iodine be added to every quart of water consumed.

The so-called vacation typhoid still manifests itself in the increasing typhoid fever rate during the summer months. If it is possible to impress the automobile tourist with the safety-first principle in the water and milk supplies there can be no question that a reduction in the typhoid fever rate would result.

MORE SEEK TESTS—An increasing number of adults and children are coming to the tuberculosis clinics for advice and, when needed, for home treatment, according to recent reports.

Many clinics are now giving the Mantoux test to discover tuberculosis in patients who seem below par. The positive reactors are supplementarily examined clinically and by the x-ray to determine whether or not tuberculosis exists in an active stage.

"This method of detecting tuberculosis is effective for early diagnosis and thus makes early treatment possible," states Dr. Edith MacBride-Dexter, Secretary of Health. "One of the greatest difficulties public health officials have in this connection is to get the case under proper supervision sufficiently early to ensure the patient maximum benefit and minimum treatment or limited hospitalization efforts.

"The recent experience in our clinics indicates that a large number of children and young adults presenting themselves for examination are found not to be suffering from tuberculosis, but from undernourishment. There is every reason to believe that, in spite of the efforts now being made in Pennsylvania to keep undernourishment at a low level, this condition among certain classes apparently and unfortunately is increasing."

INFANTILE PARALYSIS TREATMENT—Forty-five small patients are now being treated in the infantile paralysis ward at Mont Alto Sanatorium. These little patients were admitted upon recommendation of Dr. Francis S. Chambers, Medical Director of the Crippled Children's Hospital. They receive physical therapy, which involves professional manipulation of impaired limbs and muscles as well as the so-called water treatment which was popularized some time ago at Warm Springs, Georgia. This method of treatment has met not only with satisfactory, but in a number of instances with unusual results.

WATER POLLUTION BEING REDUCED—Waste products from distilleries which have been the subject of study by the Sanitary Water Board under the direction of the Secretary of Health are nearing completion.

Stream pollution, due to practices existing at the time distilleries began re-operation in Pennsylvania, has been to a large extent eliminated. Distillery operators have been highly cooperative in this activity.

The Clinic is a Strong Link in the Public Health Chain

PLACARDING HOMES—Representatives of the bureau of nursing during the last three weeks placarded 1307 homes and made follow-up visits to check the efficiency of the quarantine thus established. During the same period the nurses released 796 homes from quarantine.

This health officer work is incidental to the duties of the nursing personnel which involves services at the tuberculosis, venereal disease, cancer and heart clinics, and many thousands of visits to homes of clinic patients.

DEFECTIVE VISION—Defective vision is increasing among pupils of the fourth-class school districts of this State. The percentage of children with defective vision has increased from 17.2 in 1931-32 to 18.5 in 1933-34.

A campaign to correct the defective cases conducted through the county superintendents of schools during 1933-34 proved effective resulting in correction of 17.3 per cent. However, much remains yet to be accomplished before this situation can be considered satisfactory.

PRENATAL CLINICS—Eighteen prenatal child health clinics were conducted during the last four weeks by the Department. These involved follow-up visits in the home totalling 353. The number of new cases amounted to sixty with return visits of 141.

APPENDICITIS TAKES INCREASING TOLL—A total of 1152 persons died from appendicitis in Pennsylvania during 1934, compared with 658 deaths attributed to the same cause in 1906. The greatest number of fatalities in 1934 occurred in the 10 to 14 age group. Of the 115 deaths in this classification, 65 were boys and 50 girls. The lowest percentage of deaths occurred between the age of 30 and 34.

This condition seems to be definitely related to our higher civilization. A prompt diagnosis and the elimination of the frequent fatal practice of giving cathartics or laxatives for undiagnosed, abdominal pain will go a long way toward reducing the present high mortality rate from this cause.

Prenatal Interest Protects the Prospective Mother and the New Life as Well—Concern for These Children Began Long Before Birth

MONT ALTO SCHOOL OF INSTRUCTION—The school of instruction conducted for county medical directors, chest clinicians, State nurses, Department and borough health officers convened at Mont Alto July 8th and concluded on August 21st. The course was given twice. First to receive the instruction were the county medical directors, chest clinicians, State nurses and one-half of the health officers, totalling 319. The second course was presented to the remaining number of health officers who were not in position to take the first instruction.

The course proved eminently successful. It was suggested by the Secretary of Health. All details were under the general direction of Dr. J. Moore Campbell, director of the health conservation bureau. Lecturers included the Department's bureau and division chiefs, as well as a number of guest speakers.

JAMES M. LLOYD, of Harrisburg, inspector for the last eight years of the Department's division of field inspection, died suddenly of a cerebral hemorhage in Allentown some time ago while on duty. Conscientious to the highest degree, this efficient and kindly official insisted on continuing his duties in spite of what appeared to be a serious indisposition from which he had been suffering for several weeks.

His sudden passing was a shock not only to his fellow workers, but to the large group of men with whom he came in contact throughout the State on official business. His capacity for friendship and the making of friends was outstanding. His uniform courtesy and efficient gentlemanliness were notable.

The Department of Health has lost a lovable personality as well as one of its best trained and most diplomatic agents.

Vital Statistics Comment

HEART DISEASE MORTALITY

Florence Hardy

Statistician

◆

THE 1934 mortality from heart disease in Pennsylvania established a new high record for this disorder. The 27,128 deaths last year were equivalent to a rate of 276.2 (per 100,000 population) as against 9533 deaths and a rate of 133.5 in 1906. During the first fifteen years of registration in Pennsylvania, pneumonia, tuberculosis, and heart disease vied for highest rank among the mortality leaders. Since 1920, however, cardiac deaths have maintained precedence over all other causes.

At the present time in this State, heart disease claims one out of every four deaths in all ages, and one out of every three deaths of persons 55 years of age and over. Last year the fatalities from this disease alone exceeded the combined mortality from cancer, pneumonia, tuberculosis, appendicitis, and puerperal causes. The 27,128 deaths in 1934 represent only cases where heart disease was stated as the primary cause. In addition to this total were many instances where a cardiac disorder was given as the contributory factor.

Of the 27,128 deaths last year in Pennsylvania, 55.2 per cent were of males and 95.3 per cent of the victims were white. Over 78 per cent of the fatalities were of persons 55 years of age and over, while less than 2 per cent occurred in people under 20.

Male fatalities outnumbered the female deaths under 5 years; in the ages 5 to 24 inclusive, the female predominated; the same number of deaths was recorded for both sexes in the ages 25-29 years; male deaths exceeded those of females aged 30-74 years, while the disease terminated fatally for more women than men 75 years of age and over.

The two leaders in the mortality from diseases of the heart are chronic myocarditis and chronic endocarditis. Deaths from diseases of the myocardium constitute 52 per cent of the total heart mortality. The deaths and death rates from each cause of cardiac disorders in 1932-1934 follow:

	1934		1933		1932	
	Deaths	*Rates**	*Deaths*	*Rates**	*Deaths*	*Rates**
TOTAL	27,128	276.1	26,196	267.7	25,265	259.4
Pericarditis	64	.7	173	1.8	164	1.7
Acute endocarditis	339	3.4	323	3.3	369	3.8
Endocarditis, unspecified (Under 45 years)	40	.4	35	.4	60	.6
Chronic endocarditis and other valvular diseases	4,709	47.9	4,993	51.0	4,992	51.3
Endocarditis, unspecified (45 years and over)	282	2.9	209	2.1	330	3.4
Acute myocarditis	657	6.7	653	6.7	633	6.5
Myocarditis, unspecified (Under 45 years)	95	1.0	84	.9	138	1.4
Chronic myocarditis and myocardial degeneration	10,859	110.5	10,861	111.0	10,416	106.9
Other diseases of myocardium	2,585	26.3	2,321	23.7	2,490	25.6
Angina pectoris	1,417	14.4	1,526	15.6	1,589	16.3
Diseases of coronary arteries	2,417	24.6	2,121	21.7	1,333	13.7
Functional diseases of the heart	45	.5	72	.7	53	.5
Other and unspecified diseases of the heart	3,619	36.8	2,825	28.8	2,698	27.7

* Rates are per 100,000 population.

PENNSYLVANIA'S HEALTH

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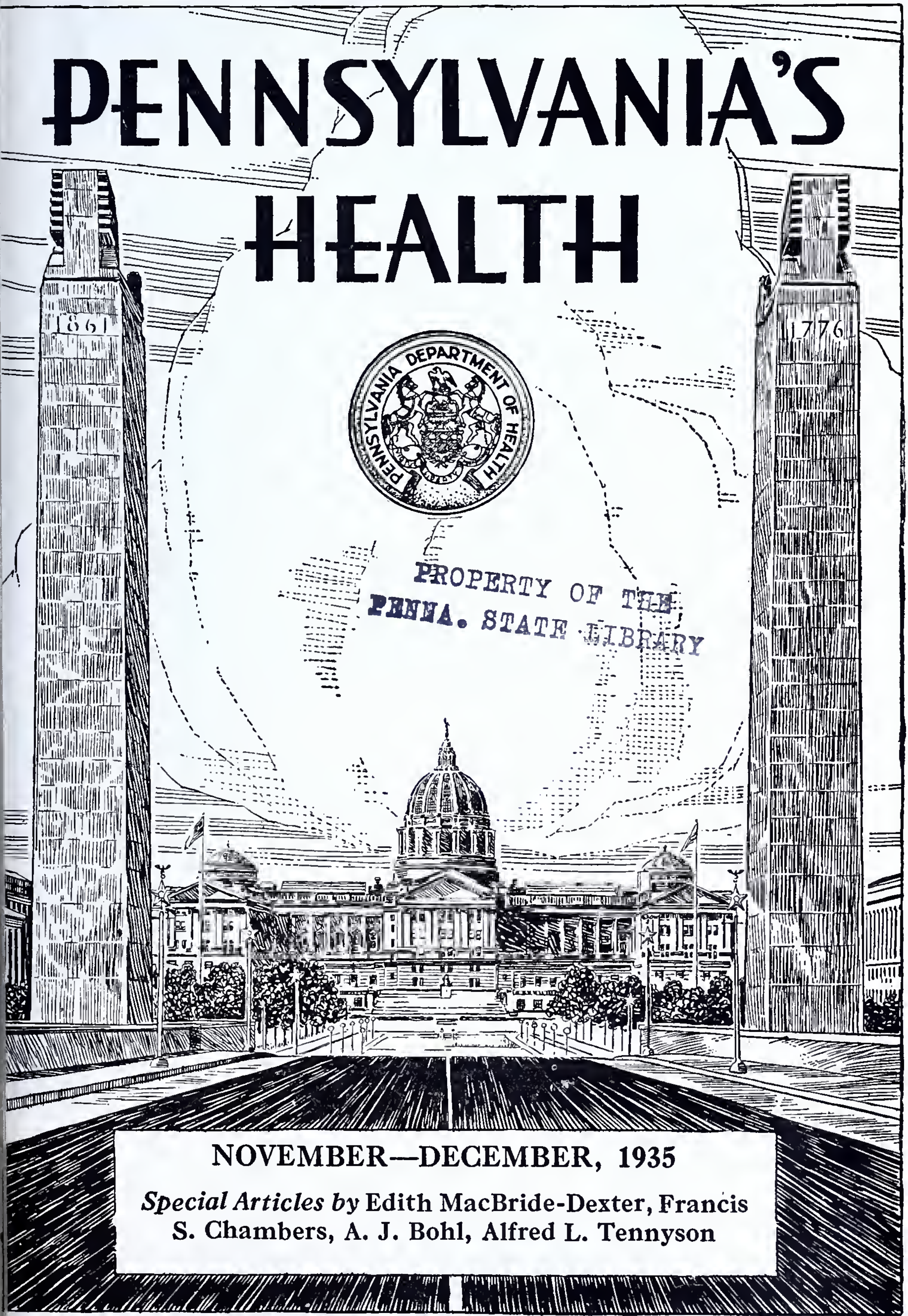

NOVEMBER—DECEMBER, 1935

Special Articles by Edith MacBride-Dexter, Francis S. Chambers, A. J. Bohl, Alfred L. Tennyson

PHE 1.17/4/7

Pennsylvania's Health

Official Bulletin of the Pennsylvania State Department of Health

EDITH MacBRIDE-DEXTER, M. D., Secretary of Health

J. CLARENCE FUNK, Sc. D., Editor

Vol. 13 Harrisburg, Pennsylvania, November-December, 1935 No. 5

"Acceptance for mailing at special rate of postage provided for in Section 1108, Act of October 8, 1917, authorized April 6, 1923."

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Published bi-monthly by The Pennsylvania Department of Health, Harrisburg, Pa. This Journal is free to the people of Pennsylvania. A request to the Editor, Department of Health, Harrisburg, Pennsylvania, will bring a copy of this magazine to your home without charge.

Editorial

WHY HIBERNATE?

BATS, frogs, raccoons and snakes are well known for their decided dislike for frigid weather. Utterly contemptuous of low temperatures they fold up, so to speak, and in varying degrees of suspended animation sleep the winter away.

This gentle and inactive custom undoubtedly is a fine thing for certain animals. However, not by the greatest stretch of the imagination does it follow that such a practice is the thing for humans. In truth, all facts point definitely and eloquently in the opposite direction. Yet, in spite of overwhelming evidence, hundreds of thousands of American families persist in emulating the hibernating animals in their distaste for cold.

Of course, it is not to be expected that the modern luxury-loving individual should be called upon to suffer the rigors and hardships to which the pioneers through necessity were subjected. On the other hand, there is a reasonable attitude regarding winter weather that, with great profit and increased vitality, could be assumed by many.

It is a temptation, certainly, when the winds are howling and the outside thermometer hovers between zero and thirty-five, to defy it with a tropical indoor temperature. There is downright satisfaction in being able to challenge nature by sinking into a soft-cushioned chair, turning on the radio, and luxuriating in a super-heated and badly ventilated room. It enormously satisfies one's conceit. But that is about all it accomplishes. For nature has a neat way of slapping in the face those who snub her. And this proclivity is very evident where the over-heated room is concerned.

The winter of the Temperate Zone at best is rather a trying affair. It taxes the strength and justifies the reasonable concern of the most vital. Consequently no one, even though having come through the summer and early autumn with excellent health, should take the needless chances that are associated with living in a hothouse temperature.

Those who thus flaunt a "softie" comfort in the face of nature's laws cannot but help pay for their arrogance. Colds, other respiratory conditions, physical enervation, lowered resistance to disease, and last but no means least, lack of ability to respond valiantly to the frigid temperature when perforce one must contact it, are some of the penalties associated with this "orchid" regulation of the human body in cold weather.

The wise person, having first the health of himself and family at heart, will keep a weather eye on the inside thermometer, and thus either train the furnace or set the thermostat to seventy degrees, at most seventy-two. Given, in addition, adequate humidification, such a temperature, while still yielding sufficient comfort for adult and child alike, will also insulate against many of the conditions that so typically generate medical and funeral bills during the winter.

Remember, hothouses are for raising vegetables and flowers. Most positively, good health cannot be raised, or even maintained, in them.

J. C. F.

NUTRITION—CALORIES, COSTS*

Edith MacBride-Dexter, M. D.

Secretary of Health

A NUMBER of years ago a pioneer syndicate health feature writer intrigued the American public, especially the feminine part of it, with the subject of nutrition. By reason of the aesthetic implications involved and because of the intimate association with the daily preparation of food, women's interest in this literary physician's efforts were logical and very general. I think it safely can be said that the public's concern in nutrition, however unsophisticated it may have been, and continues to be, dates to some extent from that time.

Most of us remember the intense calorie-consciousness generated by those daily press releases which found its ultimate expression on the menu cards of a large restaurant chain. Dutifully, the caloric value of the foods offered for consumption were printed on the right margin. Inferentially, one was invited not only to scan the list of food and the prices, but seriously to consider their worth to the human system, prior to purchase. It was a wonderful idea. However, aside from making conversation, it left people cold. The motive, while admirable, lacked psychological appeal. Hungry people wanted food, they were not in a computating mood. So the restaurant chain finally dropped the idea. Nevertheless, the scheme further emphasized to the laity the idea that different foods had different qualitative and nutritional values.

But today the laity is considerably befogged on the food question. Commercial exploitation of provender, thanks to the high-pressure advertisement writers and the radio, is a gigantic and seductive activity. The average person is implored to eat this, that, and the other on the basis that abounding health will inevitably result.

Again, food-fads laden with half-truths and mischief to the gullible add considerably to the haze in which many intelligent people, and people not so intelligent, find themselves. The main object of this is to extract money and give little or nothing, from a nutritional point of view in return.

However, because of the prolonged economic emergency, some of these false starts are being neutralized in the face of physiological need. For hundreds of thousands the palate is now subordinated to bodily requirements. The question uppermost in the minds of these people is not, what shall I purchase to please the family, but how little of the essentials to health and life can I buy without running too great a risk.

Thus, however uninterested they have been in the past, or how academically lured by fads, fancies and theories, necessity has brought them face to face with a situation that somehow must be met, either out of their own pocketbooks or from the coffers of relief. The problem is well defined by the subject assigned to me this evening.

The depression, while certainly not slowing down food exploitation and the academic emphasis on nutrition, has nevertheless generated a governmental and community interest in foods and their nutritive value that in more complacent years would have developed very slowly.

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* Address delivered before the Homeopathic Medical Society of the State of Pennsylvania.

From an economic standpoint, animal breeders for a long time have paid intense attention to the nutritional needs of their stock. But, as we all know, this highly specialized information in no sense has been applied either to themselves or to the other members of their families, not to mention the rest of us. Human diet, as an exact science was left largely to the laboratory, hospital and professional nutritionists. Now it has spread over to the relief worker.

Yet, looking at the problem in its true light, 10,000,000 of people in Pennsylvania, not to mention the 115,000,000 outside its borders, certainly are entitled to as much consideration from a diet standpoint as are cattle, for example, particularly in these days of pocketbook stringency. And the government, Federal and State, is meeting this challenge splendidly, *so far as relief is concerned.*

It would be carrying coals to New Castle to detail and explain the human food requirements to this group. We all know that the minimum necessities for normal growth and development include sufficient calories —fat and carbohydrate, adequate proteins, mineral salts and vitamins A, B, C, D, and G. This information is elementary to all of us. What we are especially interested in is the application of science to the dietary problem, and the methods thus far involved to apply them: First, to the economic victims and near victims; and secondly, to the rest of the population. It should be plain that success in developing a general personal application of this basic and orthodox type of nutritional information should mean a marked rise in vigor and health of the people, and thus create a new starting point for the nation's continued march onward.

At this time a brief review of governmental efforts is essential.

The Community Market System

In 1932 Pennsylvania's relief problem became pathetically acute. More than 1,000,000 Pennsylvanians previously gainfully employed were entirely without work. In addition, 800,000 were on one-half time or less. Our Commonwealth was confronted with the problem of meeting the food requirements of approximately 2,000,000 men, women and children of all ages. Nearly every school district reported a steady increase in the number of malnourished children. Twenty to forty percent of the 800,000 school children in rural districts showed serious effects of under-feeding and improper diet.

In addition to the food order relief system which has been consistently in force throughout Pennsylvania since general relief measures became necessary, the Commonwealth established in 1932 so-called "Community Markets." The first community market was established at Williamsport, which was considered to be successful from the standpoint of economy and health. Subsequent markets were established in 38 different localities. They were under the direction of local county relief boards.

It may be of interest to this group to know what were the minimum specifications to which all community-market rations had to conform. These specifications were prescribed by a special committee designated by the Medical Society of the State of Pennsylvania.

RATION A

Adult Ration

The adult's ration had a minimum of 2500 calories with not less than 20% of the calories in the form of fats, nor over 65% carbohydrates, not less than 10% protein and not more than 18%; contained not less than two tablespoonfuls of canned tomatoes, and one teaspoonful per day of cod liver oil; one-half of the cereals, and breadstuffs were whole grain; one serving of fresh vegetables a day; (which was intended to include the use of potatoes up to one-half of the total, and to include in each week's ration some yellow or green leafy vegetable).

RATION B

Adolescent Ration

The adolescent ration contained not less than 2300 calories with not less than 33% fats, not more than 52% carbohydrates, and not less than 12% protein, a portion of which must be animal protein. This ration contained two teaspoonfuls of tomato juice, or its equivalent, per day, one teaspoonful of cod liver oil, cereal, at least one-half being whole grain cereal, and fresh vegetables, (which was intended to include the use of potatoes in each week's ration, some yellow or green leafy vegetable, and not less than one pint of milk per day).

RATION C

Children's Ration

The children's ration had not less than 1400 calories daily, with not less than 30% fats, not over 52% carbohydrates, and not less than 12% protein, of which latter not less than one-third was animal protein; with three teaspoonfuls of cod liver oil daily, and two tablespoonfuls of canned tomatoes; 50% all cereals and breadstuffs, whole grain; and one fresh vegetable daily. Eggs were used in the diets of the young child with 1 1/2 pints of milk per day.

(Note: The quantity of milk stated in the specifications of the rations refers to milk in its natural condition as to water content, whether this be original fluid milk or any form of concentrated milk diluted to the equivalent of fluid milk).

It will be noted that the bodily food requirements for the various groups are fairly well maintained in these ration classes. One of the outstanding attainments in this endeavor involved the cost factor. The average cost per day per person, while varying in the different localities using the Community-Market system, were within the limits of 10 cents to 4½ cents.

However, the direct food-relief order became general for Pennsylvania in January 1934. Notable exceptions to this method of food distribution involves the counties of Allegheny and Philadelphia where checks are issued, based upon the complete budgetary deficiency as indicated by the investigator.

In Pennsylvania this work is centered in the Nutrition Department of the State Emergency Relief Board. Its objective is to provide a consultant service to meet the nutritional needs of families on relief, including food budgets, purchase, special diets, and instruction in preparation.

This activity is being conducted in eighteen counties upon request of the County Relief Administrator. The nutritionists cooperate with local physicians, the medical men of the local relief board, and with the Emergency Child Health Committee—cases being referred by them for dietary treatment. These involve prenatals, nursing mothers, malnourished children, and other individuals who are victims of dietary deficiency diseases.

Parenthetically, it may be interesting for you to know that every relief family is entitled to a quart of milk for every child 2 years of age or under; and one quart for every two children from 2 to 12 years old. Pregnant women also receive a quart daily.

The point which I wish to emphasize, however, is that both the State and Federal food distribution plans stress the need of informing the people on relief of food values, costs, and preparation.

Moreover, nutrition information is to be found in many Federal, State and community pamphlets. One of the best documents on this subject was prepared in 1933 by Steibing & Ward of the Bureau of Home Economics, United States Department of Agriculture. The contents of this bulletin have been popularized for the laity in an exceedingly interesting book by Hambidge entitled: "Your Meals and Your Money."

The study made in these publications, as many of you know, involves diets at four levels of nutritive content and cost. The exhaustive information contained in these publications has had wide acceptance and application by governmental and private agencies alike.

The Pennsylvania State Department of Health Activities

You will perhaps be interested in a brief recital of the State Department of Health's activities in connection with the food relief problem.

Early in the emergency the Department was charged with the duty of distributing milk to the undernourished children; funds for this purpose having been privately supplied. After the private funds were exhausted, money was obtained from Federal funds through the State Emergency Relief Board.

A nutritionist gave an intensive course on nutrition to the Department's nursing personnel, thus better equipping this force to assist in the nutrition field activities.

The Child Health Centers also give parent education in general nutritional knowledge. The Department also maintains a Diet Card Service. Through the Division of School Medical Inspection, nutrition pamphlets are being circulated.

And finally, the so-called vitamin law has made it possible for the Department to study the benefits to be derived from administering vitamin products to school children in need of them.

Emergency Child Health Committee

The work of the Emergency Child Health Committee doubtless is familiar to you. Its nutritionists, supported by local communities or individually, work with the medical profession much in the same way as do the nutritionists of the State Emergency Relief Board. The committee, I need scarcely add, has been outstanding.

From the above, I think we are all sufficiently aware that governmental and lay agency information on nutrition and cost, quite ample to meet the needs, has been made available to relief workers. I also have little doubt that to some extent, at least, the knowledge thus brought to thousands of under-privileged families will be applied advantageously by them when the emergency in which they unhappily find themselves has ended.

I am concerned, however, for that vast group of citizens, old and young, who, because of good fortune, have been practically untouched so far as food supply is concerned.

It seems to me that a real obligation rests on the shoulders of the medical profession in general to pass on to adults, for their own sakes, and through them to the children, for the latter's welfare, the information on nutrition as applied to the problem of getting the most for your food money.

Getting the Most for Your Money

It certainly is not enough to take off the poor from a starvation or semi-starvation ration and place them on an economical, healthy one—fine, essential and as pressing as this activity at the present time may be. For, it should not be forgotten that while we have plenty of poor with us, we also have plenty whose purses can command reasonable amounts of sustenance rather painlessly. Unwise purchasing, improper preparation, over-indulgence, and partaking of proper foods at the wrong time, among this latter and extremely large class represent a nutrition situation that, in my judgment, needs more professional and intelligent individual attention than it is receiving today.

Thus, it seems to me, that the next step forward is for the medical profession to inform *all* groups, irrespective of their ability or inability to pay, on the general idea—Get The Most For Your Food Money, which, of course means the most in nutritive food for the maintenance of life and the enjoyment of that life in maximum health and vitality. This represents a very definite phase of preventive medicine and constructive health education.

In closing, I quote from a pamphlet prepared jointly by the Bureau of Home Economics and the Extension Service of the United States Department of Agriculture. It says: "If men and women are to feel well and able to work, if children are to be healthy and able to go to school, they must have food enough and they must have the *right kinds* of food. To go without the foods they need for any length of time will bring the tired, run-down feeling, or actual sickness.

"If you can afford to buy what you like you can afford to buy what you need. However, not all people like what they need. And the smaller your purse the more important it is to get the most for your money * * *"

You will note that the above quotation is applicable to all of us, irrespective of our economic status. So far as we are professionally concerned it is bromidic. However, is it not the responsibility of us physicians and of others informed on the nutrition problem, to pass it along as a refreshing bit of news to those with whom we come in contact? If wisely applied, based upon information given by the family physician or specialist to his clientele, it will incalculably help all classes of Pennsylvania's citizens. To my mind, it is an obligation that the medical profession cannot lightly cast aside. It is the very essence of a humanitarianism for which the profession so notably and in many instances, so nobly stands.

⁂

The Health Gnome Says—

The cave man and the pioneer
Took weather as it came;
Heat and cold, or rain and storm
To them, was all the same.

These folks stepped up to nature,
And took her on the chin;
They didn't fuss and fume and fret—
Their big job was to win.

But with us the story's different,
We're in a cream-puff age;
If it's but seventy in the house
We fly into a rage.

Deep cushioned chairs and slippers,
Cigarettes, books and candy
And eighty degrees of stuffy heat—
Why, that is really dandy!

Dame Nature thinks quite otherwise,
She despises all this ease;
And sets about to prove it
By giving us disease.

The moral is plain, no need to say,
To cash in on winter time:
Forsake the wishy-washy crowd—
And forswear the hothouse crime.

J. C. F.

THE POLIO PROBLEM

Francis S. Chambers, M. D., F. A. C. S.

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POLIOMYELITIS, otherwise known as infantile paralysis, exacts an annual toll of from two to three hundred victims in Pennsylvania. The majority of those who survive are left permanently handicapped by paralysis and deformity. This disease usually attacks young and healthy children, blighting the lives of many of our future citizens. Moreover, adults are not always spared. Should an epidemic of severe proportions again sweep Pennsylvania, the polio problem would become more serious than it is today.

Acute poliomyelitis causes intense inflammation of those parts of the spinal cord which supply "motor nerves" to the muscles. Paralysis of the muscles results from loss of their nerve supply. Fortunately not all of the paralysis is permanent. Some of the nerve root cells will again come to life when the inflammation subsides, with a return of power to the paralyzed muscles; some may be nursed back to life by intelligent treatment; but a certain number are likely to be completely destroyed, causing permanent paralysis. During the acute illness no one can foretell how much of the paralysis will be permanent nor how much spontaneous recovery will occur. However, it is well known that recovery is greater when the patient receives proper care.

The tragic sequelae of this disease can be mitigated if every polio would receive good nursing care during the acute illness, intelligent treatment during the period of convalescence, and continued orthopedic care and physiotherapy in the years that follow. Finally, scholastic and vocational opportunities adapted to the physical limitations of the polio must be provided. These demands naturally place a heavy burden on the family purse and on the resources of all agencies struggling to aid crippledom.

What can be done to eradicate this scourge?

Quarantine

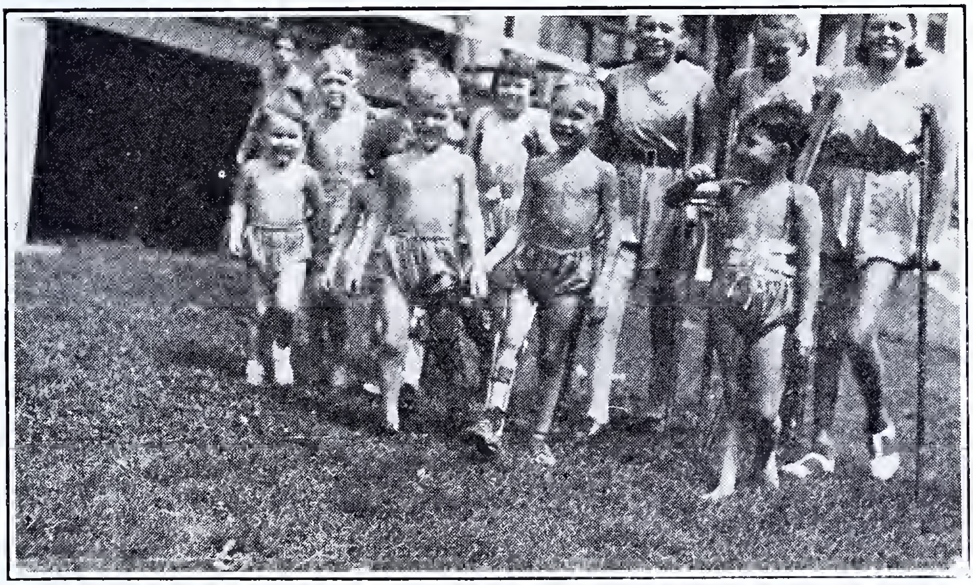
The acute polio must be isolated. The disease is caused by a microorganism the identity of which remains a mystery. It will filter through substances which are barriers to other species of germs. It is probable that poliomyelitis is often transmitted by carriers (neutral persons who themselves do not acquire the disease). Many investigators believe that insects, food stuffs, dust, etc. may be factors in it's transmission. It is therefore not surprising to find poliomyelitis striking in unexpected quarters, mocking the quarantine checks that have been raised against it. However, one must not lose faith in the quarantine regulations; on the contrary, every one must cooperate to make them more effective.

If there should be another epidemic parents should not permit their children to become exhausted or unduly fatigued by play. I have observed that poliomyelitis frequently attacks those muscles that are temporarily fatigued or exhausted by violent exercise. This probably explains why the lower extremities are more commonly affected than the upper ones. Blows and injuries at times seem to be predisposing factors. Swimming during an epidemic is hazardous, due to the fatigue produced, also because the virus of the disease may be transmitted from the nose and throat of a carrier to a future victim by means of the water itself. Consequently, avoidance of fatigue is important in prevention. It is likewise a dominant factor in treatment during convalescence, as will be mentioned later.

Vaccination

Smallpox is now a rarity, due to compulsory vaccination against this disease. Typhoid has practically disappeared from the U. S. Army, also by grace of compulsory vaccination. Even voluntary submission to vaccination against diphtheria has spectacularly reduced its incidence. Vaccination against acute poliomyelitis would be the ideal method of control.

Very recently scientific investigation has evolved a method of vaccination against acute poliomyelitis which seems most promising. This method has been developed by Dr. Kolmer of Temple University. The vaccine is obtained by special laboratory methods from the diseased spinal cords of monkeys infected with poliomyelitis. It was first demonstrated that healthy monkeys could be made immune to the disease by injections of this vaccine. A number of children have subsequently been vaccinated with the same virus and no ill effects have developed.



Carried In Helpless—Marching Forward, Thanks to Physiotherapy at the Mont Alto "Polio Ward"

For many years a similar method has been used successfully to control hydrophobia. It is known as the Pasteur treatment. The discoveries of Pasteur were revolutionary. He likewise obtained a suitable virus for vaccination from the spinal cords of animals infected with hydrophobia, also known as rabies. Injection of this virus into humans exposed to hydrophobia from bites of infected animals has saved many lives. While hydrophobia and poliomyelitis are two distinct diseases, they both attack the spinal cord and, in both, the organism causing the disease is unknown. It seems reasonable to suppose that the Kolmer method, similar to that so successfully used against hydrophobia, might prove of value in controlling poliomyelitis.

Vaccination against any disease to be effective must be performed reasonably early. Sufficient time must elapse to enable the individual to develop certain reactions without which no protection will be obtained. With hydrophobia there is an interval of several weeks from the bite by the animal to the appearance of the first symptoms of the disease. This is called the incubation period. It affords the individual sufficient time to develop protective reactions from the Pasteur vaccine and thus become immune to hydrophobia.

Exposure to poliomyelitis can never be so definitely known nor is the incubation period of this disease sufficiently long to enable the patient to develop immunity. Therefore, we must not expect this anti poliomyelitis vaccine to be effective for treatment as in the case of hydrophobia. For protection it would be best to administer it prior to the onset of an epidemic. Since there has been no severe epidemic to test the merits of this method of vaccination many public health authorities have not felt justified in recommending that it should routinely be administered to all children, particularly so since the disease has been of sporadic incidence in recent years. However, this discovery can not fail to inspire hope and confidence that we may now possess a means of controlling this disease.

Behind our first line prevention trenches our hopes must depend on means of checking the ravages of the disease before enough destruction in the spinal cord takes place to cause paralysis. Unfortunately our second line of defenses is far from invulnerable.

Serum Treatment

Since the organism causing poliomyelitis is unknown and it is therefore impossible to grow it artificially, it has not been possible to obtain anti-poliomyelitic serum from animals as has been so successfully done in diphtheria.

Individuals who have had acute poliomyelitis remain immune to subsequent attacks. Many adults possess natural resistance to the disease, that is, they are naturally immune. Serum obtained from their blood has been found to possess curative properties. Such serum is termed "convalescent serum," "adult serum," "mixed" or "pooled serum" according to the source from which it is obtained. Serum of this type has been used for several years with some beneficial results. However, its potency is not to be compared to that possessed by anti-diphtheretic serum. Furthermore, the potency varies widely in different sera. For this reason, its administration sometimes appears to be beneficial and at other times it is without effect. However, it is worth while to use it since its injection into the muscles at least does no harm. To be effective it must be administered early before the onset of paralysis. If first used after paralysis is well established, it is of doubtful value.

Difficulty of Diagnosis

The first evidence of paralysis is from 36 to 48 hours following the onset of the acute symptoms (fever, headache, stiffness of neck and prostration with the fever, etc.) The full extent of the paralysis is developed in from 48 to 72 hours later. These early symptoms are not especially specific to poliomyelitis; they are often duplicated by other conditions.

Frequently it is difficult to establish a diagnosis of poliomyelitis prior to the onset of paralysis, particularly so in the absence of an epidemic when suspicions are not aroused. In the pre-paralytic stage, the diagnosis can only be confirmed by examination of the spinal fluid. One hesitates indiscriminately to introduce a needle into the spine of every child who is indisposed by moderate fever and other comparatively trivial symptoms.

It is thus evident that many patients will continue to be stricken with this disease and develop paralysis. Hence we must depend on our third line of defense, namely, intelligent care during the acute illness.

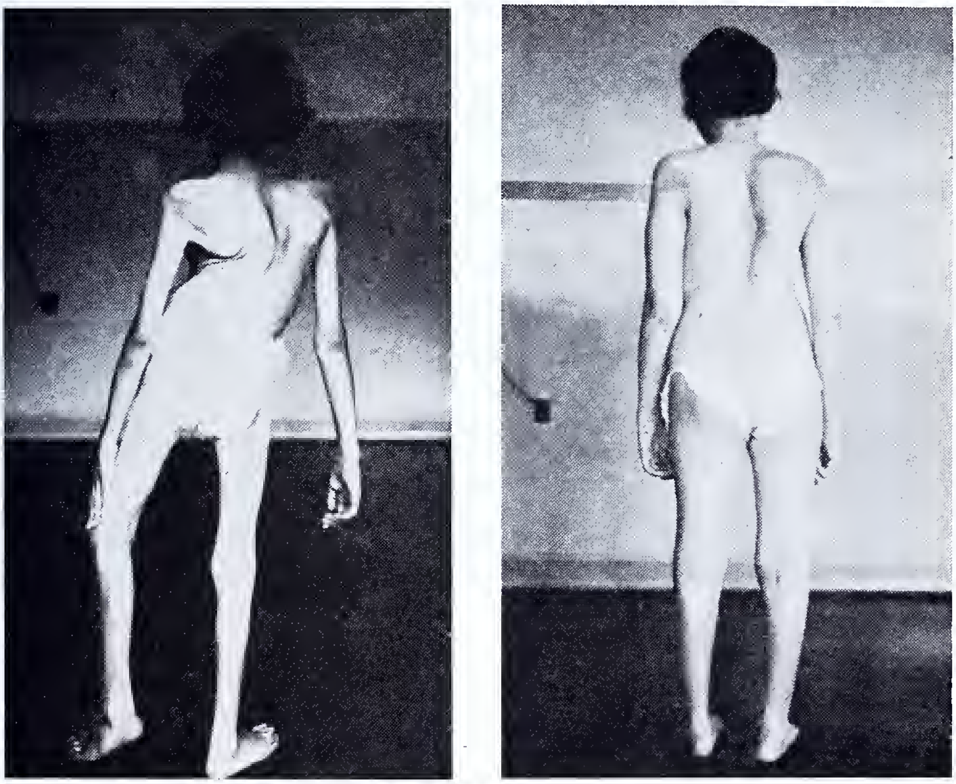


Fig. 1. Severe curvature of the spine due to poliomyelitis. Fig 2. Same case after improvement of curvature and stabilizing operation of the spine. Better results would have been obtained had the correction been undertaken earlier.

Care of the Stricken

It is well known that rest and immobilization favor healing of all acutely inflamed parts. Realizing the severity of the acute inflammation involving such delicate structures as the spinal cord itself, the importance of absolute bed rest with suppression of all movements of the affected parts is obvious.

Efficient nursing is vital. It demands patience and skill properly to care for the nursing needs of the acute polio. Paralyzed members must be adequately supported so that affected muscles will not be overstretched. With efficient nursing care the patient will suffer less pain, and healing of the inflamed nerve structures will be hastened. On the other hand, an acute polio sustains additional damage and endures needless suffering because of improper care. Many of these patients are to be found in impoverished homes where the employment of an experienced nurse by the family is impossible.

The services of a visiting nurse with orthopedic experience are most valuable. Unfortunately our rural patients are often beyond the reach of any Visiting Nurse Association. Many of the nurses of the Department of Health have received orthopedic instruction at the State Hospital for Crippled Children. They have been able to help a number of these acute polios in the rural districts, caring for them in the capacity of visiting nurses under the direction of the attending physician. Efficient nursing care should be made available to every polio during the acute stages of his illness.

Many of these patients die when the muscles of respiration become paralyzed. Fortunately the paralysis often develops gradually during a period of 18 to 24 hours. Such patients should be rushed at once to an institution possessing a respirator.

The respirator is an apparatus of recent invention. Patients with respiratory paralysis can be kept alive in a respirator for many weeks, and a high percentage of them recover. The respirator has thus saved many lives. Unfortunately they are costly and not always available.

Convalescence

Convalescence begins with the termination of quarantine. The acute symptoms having subsided the affected parts remain sensitive up to six to eight weeks, occasionally longer. The ensuing nine to twelve months are important. During this period, the convalescent polio needs intelligent care and guidance.

It is hard to convince parents that it is harmful to permit such patients to sit up, stand, or walk if the muscles are too weak to hold the body in proper position. Faulty positions place the weakened muscles at a disadvantage; they become fatigued and over stretched under these unfavorable conditions.

Stretching and fatigue of the muscles frequently makes recovery impossible. Continued weight bearing in deformed positions often causes permanent deformities which eventually may require surgical operations to correct them. The problem now is:

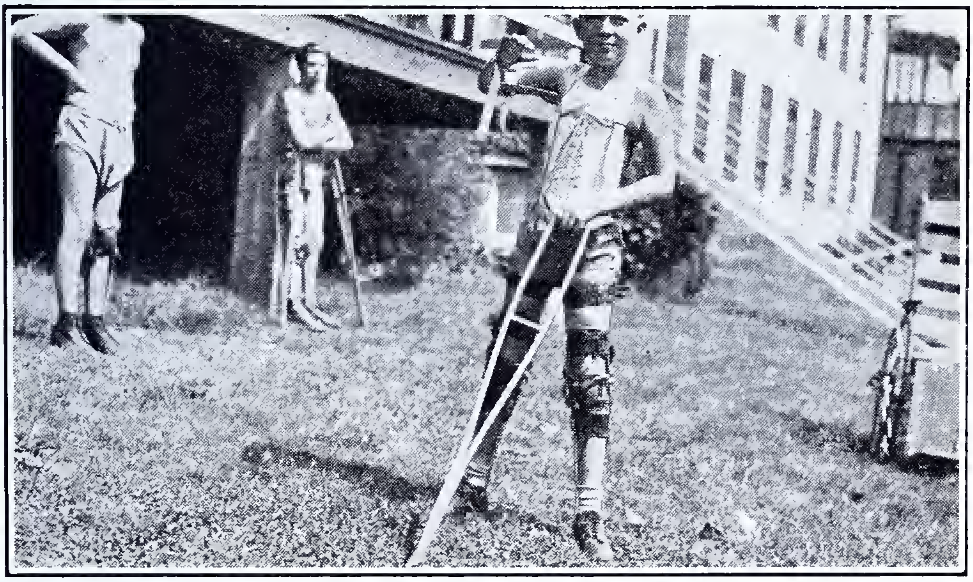
(1) To prevent deformities from developing, using suitable splints and braces when indicated.

(2) Strengthen weakened or paralyzed muscles by proper treatment, massage, active exercises, muscle training, etc. No treatment should be permitted to cause fatigue of the weakened muscles.

Water Treatment

Water gymnastics are now indicated. The water of the treatment pool should be heated to 90 degrees, because the circulation of the paralyzed members is too poor to enable the patient to tolerate a lower temperature with comfort. When the patient is submerged the buoyancy of the water removes the resisting forces of gravity. Weakened muscles are now able to perform movements otherwise impossible. The patient's joy in finding himself able to execute these movements stimulates him to greater efforts and so hastens his progress.

The fact that more exercises can be performed with a minimum of fatigue makes under water gymnastics extremely valuable to the convalescent polio. However, the benefits derived from exercises in the pool will be negligible if the patient is permitted to fatigue the weakened muscles by unsupervised activities. For this reason it is essential to combine water gymnastics with institutional care.



Pathetically Helpless Upon Arrival. Now Walking—And Getting Stronger and More Capable Every Day

All muscle training and exercises should be given by a physiotherapist experienced in this work. Untrained workers are likely to exercise strong unparalyzed muscles and at the same time exhaust those that should be treated. Only a trained worker is able to detect early signs of fatigue in partly paralyzed parts. Early contractures must be stretched skillfully.

The average instructor of normal children in the swimming pool is not qualified to undertake the treatment of the convalescent polio. The general swimming pool may be of some benefit to the chronic case as a healthful recreation, but it does not constitute efficient treatment.

Every polio must be taught to swim properly, modifying the stroke used to his special needs. Otherwise he may continue to strengthen normal muscles at the expense of fatiguing and over stretching the paralyzed ones. Such unsupervised activity often results in deformities.

For the past two years, the Department of Health has provided water gymnastics augmented by proper institutional care for a number of convalescent polios. A swimming pool 40 feet long, situated in the basement of the Children's Hospital at Mont Alto has been used, and special wards have been set aside for the use of these patients. This hospital is used as a preventorium and is located one mile distant from the Mont Alto sanatorium proper, where patients with active tuberculosis are treated. Experienced physiotherapists have been engaged. The surgical staff of the State Hospital for Crippled Children provides the necessary orthopedic supervision of this work.

At this "water gymnasium unit" 75 polios have received treatment. Deformities have been prevented, thereby sparing a number of these patients from the necessity of surgical operations. The return of power to previously paralyzed muscles really has been remarkable.

This work has been carried on with limited facilities and many inconveniences, but it has been eminently worth while. These activities will be transferred to the State Hospital for Crippled Children just as soon as it is possible to build a water gymnasium at this hospital and provide additional accomodations for these patients.

We have endeavored to follow the splendid work of the Georgia Warm Springs Foundation which is the only institution the activities of which are exclusively devoted to the treatment of poliomyelitis.

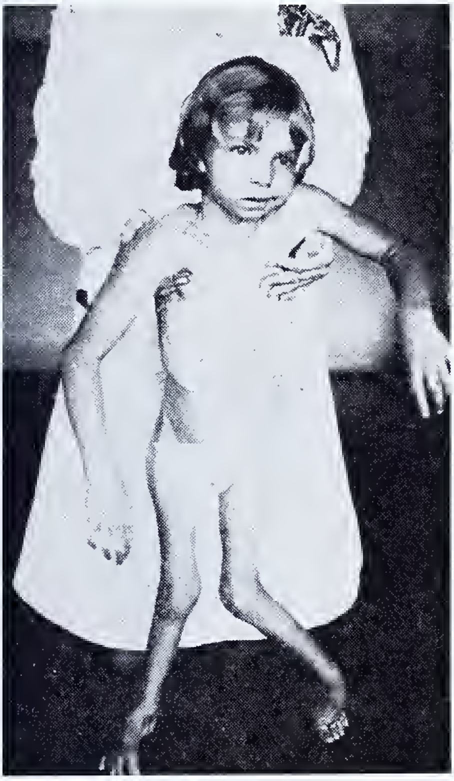
The purposes of the Georgia Warm Springs Foundation are not thoroughly understood by everyone. It is the intention to continue with its present capacity of 100 beds, carefully administered so that it may radiate helpful influences to every part of the country. Likewise, to afford opportunities to young orthopedic surgeons and physiotherapists to study the methods of treatment at that institution so that they may return home with an advanced view point regarding rehabilitation. Warm Springs is also promoting research.

The Chronic Polio

Under efficient treatment all of the paralyzed muscles likely to recover will have regained some power at the end of the first year. Further increase in the strength of weakened muscles is possible with continued treatment, and avoidance of fatigue. Deformities may still develop if weakened muscles are not protected by braces from over stretching, particularly so in young growing children. Faulty habits of locomotion with exaggeration of existing limps must not be permitted to develop. The physiotherapist, who should also be a skilled physical educator, must continue to train these patients in the best use of their weakened members. It should be emphasized however that water gymnastics do not produce the remarkable results in the *chronic* polio which is observed in the convalescent.

If the handicap is slight or even moderate, the child can attend school, and be supervised in an out-patient orthopedic clinic. However, school sessions and clinic hours often conflict, so that under existing conditions it becomes difficult to provide the necessary orthopedic care without interfering with school attendance. The only remedy is to provide physiotherapy in some of our schools in which the polio patients could be placed.

If the child is seriously handicapped by extensive paralyses then the problem is greater. Let us refer to the child shown in Figures 3 and 4.



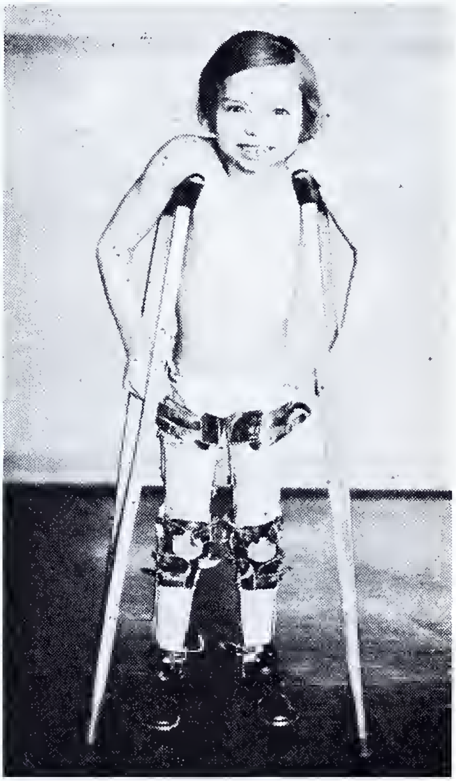


Fig. 3. Multiple acquired deformities that might have been prevented by proper treatment. Fig. 4. Same Patient as in Fig. 3. Several operations were required to correct the deformities. She should have special opportunities for scholastic and vocational training.

On admission to this hospital she could neither walk nor stand. For this reason she had never attended school. The first figure shows the presence of a number of acquired deformities which might have been prevented by proper treatment. Doubtless much recoverable muscle power was lost since the parents were too poor to provide treatment. It required several operations to correct these deformities. She was discharged from the hospital able to walk with braces and crutches. She received schooling while hospitalized and was advanced to the grade of her school age. Since discharge she has attended a little rural school, which doubtless has developed many difficulties. If she were a pupil in one of the higher grades of a consolidated school, she would be confronted with the added task of climbing stairs. There are many similarly handicapped children in this State who are unable to attend school regularly. For these reasons, a special hospital school is needed in Pennsylvania to care for these seriously handicapped children. Otherwise many of them will continue to be deprived of proper scholastic instruction and vocational training. The same holds true for children seriously handicapped from other conditions.

Late in the chronic state "stabilizing operations" are frequently indicated. By means of these stabilizing operations members can be strengthened permitting the patients to discard apparatus. Operations performed for the correction of deformities will be indicated less frequently as measures are developed to prevent their occurrence.

In conclusion, it is to be emphasized that more should be done for the polio in the acute and convalescent stages of the disease. More deformities should be prevented; and finally scholastic instruction and vocational training should be placed within the reach of every polio. They all have normal brains and are worthy of our best.

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WHAT HOUSING MEANS TO HEALTH

A. J. Bohl

Treasurer, Pennsylvania Public Health Association

BACK in the good old days of yore, I mean away back, there lived and flourished a race of men known to us as the Troglodytes, although they were probably just plain Smith and Jones to one another. They had a rather unpleasant habit of living in holes in the ground, in caves and such. They had to take it and like it, because, you see, modern housing had not yet been invented.

Door to Left is Main Entrance to a One-Room "Home" in this "Apartment Building"

Their places of residence were dark, ill-ventilated, very poorly heated, probably very dirty and full of rubbish, and in all likelihood had no sort of drainage facilities or water supply. All this was, when the world was quite young, maybe twenty or so thousands of years ago.

Now in these two hundred centuries, the world has become full of a number of things, but I'm not so sure that, even with Mr. Browning's very confident statement ringing in our ears, we should all be as happy as kings.

Among the things of which the world has become full are houses. As a nation we have been sedulously led to believe that the home really is, in our expressive modern idiom, something. Orators have orated in its praise, singers have sung in its behalf, and by a conservative estimate the pencils worn out in writing about it have consumed sufficient lumber to build a large city.

And, abstractly, the home is nothing at which to poke fun. Everybody has had a home of sorts, and likes to recall it with rather tender feelings. Of course almost any place can be a home, and often is.

Going back to the Troglodytes, and the description of his home, has it dawned on your consciousness that the description could honestly be applied to a considerable number of structures used as homes today? To our shame as a nation, as a citizenry, this is true. Our Troglodyte was a savage, pure and unalloyed. He had to scratch both himself and for a living. However, he did not have to do much else. Certainly he paid no taxes and dodged automobiles. So he managed to struggle along with his low class housing and live a fairly happy and contented life, as he knew no other one.

He had his problems, of course, problems of birth and death and the then version of "I love you truly," but he got by because these were simple and inevitable things which he could understand and for which he could allow. But occasionally things must have happened that were beyond his comprehension, things like the sudden waning of the health and strength that were his normal lot. Possibly it never occurred to him that living in a damp cold hole in the ground, with its bad air and total lack of drainage, might adversely affect his health and well-being. He could not have appreciated this fact or he, being a free agent, would have done something about it. It seems that free agenting has gone into a decline, these days, since it must be apparent to thousands, at least, that bad housing is affecting the health of individuals and communities today.

Right here in the U. S. A. today there are a lot of dwellings that will have to be torn down in the next few years, or they'll fall down. It has been estimated that no less than ten million dwellings will have to be erected within the next decade to provide for the needs of our population, and half of them will be replacements. Here in Pennsylvania it may be that as many as one million houses will have to be constructed by 1945. Certainly there will be many new and reconstructed homes needed throughout the State.

For instance, the writer, during late 1934 and early 1935, carried on a survey of certain slum areas in a central Pennsylvania city. The areas covered comprise portions of the oldest sections of the city which, by reason of their close proximity to the central business section are quite desirable as residential areas. Not for the high class home, not for $5000 and $8000 and $10,000 homes, but for homes which can be rented by the poor man who can pay no more than $30 a month. Years ago these were such residential sections, but old age and high taxes, together with the depression and its lack of employment, stopped repairs and improvements, so that today parts of the areas are beyond redemption. Within a five to ten minutes walk from the center of the city are houses that have been stripped of everything movable, salable or burnable, so that they stand as shells of what once were homes. There are houses with no water supply or with no toilet facilities. There are roofs through which a football could be kicked, if anybody wanted to do it. There are houses with no cellar stairs, and with unsafe rickety stairs to the upper floors. There are broken and patched and fallen walls and ceilings. There are no repairs, because in a great many instances there is no income; the houses are empty or the occupants are unable to pay rent. Here is housing at its lowest.

A "Rented House" That Represents Housing at Its Worst

In this investigation, over 3500 dwellings were inspected, and 39 percent of them were found to be in an unsatisfactory condition, which means anything from total unfitness for use to a leaky roof or broken porch floor.

Of these 3500 dwellings:

54.53	per cent have no central heating
31.83	per cent have no sanitary plumbing indoors
31.54	per cent have no gas or electric stoves
7.53	per cent have no water supply indoors
6.69	per cent have no electricity
35.28	per cent have no bath

From the above it can be seen how far these houses depart from modern standards of equipment, and while individual houses can be repaired and revamped into fairly comfortable quarters, it is doubtful that any investor would be found with enough temerity to put any money into such repairs or improvements.

From the social side, an even blacker picture is presented. In these slums exist about ninety percent of the city's commercial prostitution. About the same percentage of the felonious assaults occur here, together with eighty percent of the liquor law violations, and seventy-five percent of the highway robberies and larcenies. Generally, ninety percent of all crime in the city is committed here, or, if elsewhere, is committed by residents of these areas.

From a health and sanitation standpoint also the picture is of darkest hue. With no outstanding percentage of the city's communicable disease reported from these slums, it is known that many cases unreported and uncontrolled occur. There are many sewer nuisances, many accumulations of rubbish and trash, and altogether the most filthy and disreputable conditions exist.

Beyond all doubt similar conditions may be found in almost any city of the State or of the United States. And remember that while these slum houses are the worst in point of repair and improvement, yet in many city houses, in excellent physical condition, may be found lacking what we have come to consider the fundamentals of housing. Such things as central heating systems, baths and toilets, modern kitchen equipment; even gas and electricity, are sadly lacking in many a handsome, but old fashioned, dwelling.

Inhabited Only a Few Weeks Ago!

After all, we're not so far removed from the Troglodytes. As individuals who possess or live in beautiful modern homes, we do not think, we do not care to think, of the millions who live in the inadequate insanitary dwellings nearby. Yet we are all tied together with a thousand invisible bonds. Our children attend the same schools and libraries, we use the same churches, the same buses, go to the same theatres, eat at the same restaurants, buy at the same stores. We live a community life, like bees or ants, or like Troglodytes, whether we like it or not.

And like all communities, we must maintain standards, for any lowering of standards by part of the population tends to lower all other standards. That is inevitable.

And this housing problem cannot much longer be disregarded. Every year, every day in fact, brings these unfit-for-use houses closer to dissolution. Every year witnesses a lowering of social, physical and moral living planes in those compelled to live in them. It can't go on, not if we are, as a State and a Nation, to maintain the standard of living that we have so painstakingly achieved. We cannot afford to let down.

It's not going to be easy, perhaps, to remedy these conditions, yet the designing and construction of a million homes comes under the head of big business. And big business has a habit of doing what it sets out to do.

All it needs is just what all of us need—some assurance that money will retain its purchasing power and that an appreciable number of men will go back to work.

Of course, that's a lot, I know, but it just seems to me that it won't be much longer before we will be back on our financial and economic feet. And then, oh boy, what a chance to eliminate the shacks and shanties that are masquerading as homes.

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THE NARCOTIC PROBLEM

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THE legitimate medical and scientific needs of the United States for narcotic drugs are met by the importation under certain restrictions of supplies of crude opium and coca leaves to be manufactured into the several derivatives such as morphine, codeine, and cocaine, respectively, which are distributed in accordance with the provisions of the Harrison Narcotic Law, as amended. No manufactured form of narcotic drug such as powdered opium or morphine is permitted to be imported and the total supplies of the crude drugs, i. e., opium and coca leaves permitted to be imported during any year are limited to those deemed necessary to supply medical and scientific needs by the Commissioner of Narcotics who has the advice, in making his estimate, of the Surgeon General of the United States Public Health Service. The total average yearly quantity of crude opium thus imported will be between 110,000 and 120,000 pounds while the corresponding total yearly quantity of coca leaves imported will approximate 225,000 pounds.

After being imported and manufactured into the medicinal derivatives, further distribution is governed by the provisions of the Harrison Narcotic Law, as amended, which requires registration of all persons who manufacture, deal in, or dispense narcotics and restricts sales and transfers to those made upon an official order form. This system provides an accountability and a check of all the drugs from the manufacturer and wholesale dealer to the dispensing classes, the practitioner and druggist, and the dispensing professions may only prescribe or dispense narcotics to patients in the course of professional practice. The system is designed to make narcotic drugs available only for bona fide medical uses.

Any traffic in narcotic drugs not in accordance with this system is illegal and is necessarily improper because its purpose is that of gratifying and perpetuating drug addiction as a vice for financial gain. It is a function of the Federal Narcotic Bureau to detect and prevent such illicit traffic and to bring to justice those found to be engaged therein.

The Enforcement Problem

The enforcement problem has two phases. First, that of investigating the clandestine illicit traffic which has its source of supply in smuggled narcotics and secondly, that of preventing the diversion from legitimate medical channels of narcotics by those who are permitted to obtain custody and control of narcotic drugs for ultimate medical use. In the prevention of smuggling the Bureau of Narcotics has the cooperation of the Bureau of Customs and of the Coast Guard. It is believed that within the past five years considerable progress has been made toward reducing the supplies in smuggling channels. However, it is obvious that with the great volume of general merchandise traffic through United States ports and the lengthy coastal and border lines of our country, considerable supplies of smuggled drugs still find their way into the hands of our drug peddlers and constant vigilance is necessary in investigating and eliminating the unlawful interstate traffic as well as the clandestine supply depots within the several states. In this work of eliminating the internal illicit traffic, the Bureau of Narcotics is favored in many instances with cooperation of state and municipal enforcement officers, and hopes to obtain an even greater degree of such cooperation in future. It should be stated that, with particular reference to Pennsylvania, the Bureau enjoys a gratifying measure of aid and assistance from the Bureau of Narcotic Drug Control of the Department of Health of Pennsylvania as well as from municipal police departments of the State.

In connection with preventing diversion of narcotic drugs from legitimate medical channels, this problem involves the improper sale or dispensing of narcotic drugs by the dispensing classes, the practitioner and druggist, either through sheer commercialism or through what may be termed ill-advised dispensing. This should not be understood as an indictment of the professions of medicine and pharmacy as a whole because the great majority of the members of these professions have been found to be law-abiding citizens in so far as investigations of the practice relating to narcotics by the Bureau has developed. There are, however, a few in these professions who are grossly careless or so completely regardless of professional ethics as to cater to drug addiction for gain, and it becomes necessary to eliminate these persons by prosecution and conviction. There are also a number of such practitioners who are themselves drug addicts and who use appreciable quantities of supplies of narcotics that should be applied to medical needs, for the gratification of their personal addiction. Efforts have been and continue to be made to cause revocation of the licenses to practice of the peddling and drug-addict practitioners.

Effects of Drug Addiction

It is perhaps unnecessary at this date to discuss the deleterious results of narcotic drug addiction. Every right-thinking person has a horror of the habit and a sympathy for the unfortunates who have become enslaved. The extent to which the craving incident to drug addiction dominates every other human want and subordinates consideration of morality and decency is made evident in reports of results of narcotic investigations throughout the years. Some time ago, narcotic officers in an Ohio city arrested a Chinese for flagrant violations of the narcotic law. This Chinese had an apartment which was a rendezvous for a number of young girls, some of whom were of good family, whom he had caused to be enslaved to the habitual use of narcotics. The apartment was the scene of nightly orgies where these young girls gave themselves without reservation to the entertainment of the Chinese host and his male Chinese friends. This and other instances make it clear that unrelenting enforcement effort directed against the illicit narcotic drug traffic must continue.

The Bureau particularly seeks the aid of state authorities in the matter of supplying facilities for the care and treatment of narcotic drug addicts within their respective borders, and the requirement that such addicts take advantage of the treatment when established. The United States Government has established an institution near Lexington, Kentucky, for the care and treatment of drug addicts and another such institution is contemplated, to be located near Fort Worth, Texas. These institutions, however, are primarily for the treatment of addicts who have been convicted of violations of the federal law and as the accommodations are very limited there cannot be much room available for voluntary applicants for treatment.

I should like to mention an incident officially reported from Egypt which I consider interesting in this connection because it illustrates in that country a condition which is applicable in greater or less degree in the United States. In the Cairo Antirabic Institute, a hospital specializing in administration of the Pasteur treatment, the surgeon in charge noted that a number of patients had been admitted for the treatment from a certain small Egyptian village, all of them apparently suffering from bites of a mad dog. Incidentally, all of these patients were found to be heroin addicts also, and while undergoing the Pasteur treatment they were incidentally treated for the cure of the drug addiction. Being surprised at this large number of patients from one village, the surgeon made an investigation and finally learned from one of the patients the story. It appears that the first patient from his village had really been bitten by a mad dog and after being given the treatment had returned to the village cured of his heroin addiction. Other citizens of the village who were addicted to heroin also wished to take a cure but could not be admitted to the hospital merely for that purpose and they presented their problem to the village barber who appeared to be a minor health officer. The barber fitted a steel spring to the jaws of a dead dog, and for a small cash consideration gave each of the applicants a "bite" from this contraption, and the resulting laceration being exhibited to a public health physician permitted the "patient" to be admitted for hospital treatment. Surely such a subterfuge should not be necessary to justify treatment of a drug addict, yet in our country it is often the case that, in order for the indigent addict to obtain any kind of treatment, he must be committed to jail as a vagrant, and such treatment is necessarily of such short duration as to negative any hope of a permanent cure. We feel that the problem is one for cognizance by the several States.

Marihuana

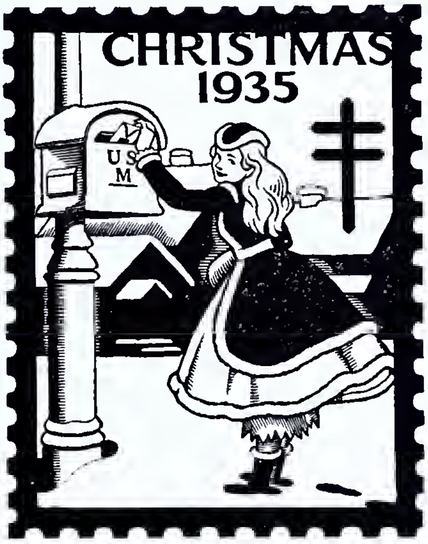
One final point is that of the control of the traffic in cannabis or marihuana, a substance which does not come within the purview of the federal narcotic laws but which is covered in greater or less degree by the laws of most of the State. From reports received there is ground for believing that there is a rather alarming increase in the use of marihuana cigarettes, which were formerly only used by persons of Latin-American extraction. There has even been evidenced the spread of this vicious habit among children of high-school age. As the cigarettes sell usually at the rate of three for twenty-five cents, it is possible for some children to obtain this commodity. It is believed that the States will be fully alive to this potentiality of debauching particularly the youth of our citizenry and should make every effort to enforce vigorously existing statutes directed against this traffic and to provide appropriate legislation where it does not exist. In the State of Pennsylvania I believe the State Bureau of Narcotic Drug Control is cognizant of the danger involved in this traffic and has already achieved, in my opinion, considerable progress in the detection and elimination of peddlers in marihuana.

THE CHRISTMAS SEAL

COURIERS of the mail through many ages are honored by the Christmas Seal this year. It is peculiarly fitting that the Christmas Seal for 1935, which symbolizes a united effort to control tuberculosis, should commemorate the mail service which has done much for the public welfare and plays an important part in the distribution of the Seals.

The Christmas Seal for the twenty-ninth annual sale pictures a girl in her Civil War costume dropping a letter in one of the first post boxes used in the United States. At that time they were called lamp boxes and were placed on the gas lamp posts in larger communities.

Dramatization of the story of the mail through the ages and particularly during the history of the United States will be presented in plays and pageants in the schools and before commnity groups. These will be given generally on "Thanks for Health" Day, which is to be observed on Wednesday, November 27. The sale of Christmas Seals and Health Bonds formally opens on Friday, November 29.



Protect Your Home from Tuberculosis

BUY CHRISTMAS SEALS

The plays provide authentic historical and health education material. For grade schools the program includes a Thanksgiving proclamation of historical value; a pageant, "The Story of the Mail," portraying the history of mails from 3,000 B. C. to the first continental flight by Lindbergh; "A Postmaster's Dream," showing how the Christmas Seal originated and how it has helped fight tuberculosis. For high schools and community groups two striking pageants prepared are "Passing the Word," a story in rhyme of what was thought about tuberculosis from the stone age to the present, and "The United States Mail Reviews Its History," a review of the development of the mail service in America, beginning with colonial days and ending with Lindbergh's flight to establish air mail routes.

With Benjamin Franklin as the first postmaster general, Pennsylvania figures prominently in these pageants just as it had an important part in establishing the Christmas Seal as a big factor in combating tuberculosis.

The forces fighting tuberculosis continue to make steady progress against this age old enemy. But the loss in human life and the breaking up of families continues to be one of the serious health problems of the day, especially from a preventable disease standpoint. The heaviest toll is taken in the younger age groups when men and women are on the threshold of their greatest usefulness in the family and the community.

Christmas Seals and Health Bonds are sold in this State by the Pennsylvania Tuberculosis Society and its affiliated county and local organizations. Their work throughout the year is carried on in co-operation with official health agencies and the medical profession.

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DEPARTMENT NEWS

CHECK EYESIGHT—Defective vision is increasing among pupils of the fourth-class school districts, according to a statement issued by Dr. Edith MacBride-Dexter, Secretary of Health. The percentage of children with impaired vision in this Commonwealth has increased from 17.2 in 1931-32 to 18.5 in 1933-34.

A campaign to correct the defective cases conducted through the county superintendents of schools during 1933-34 has proved effective. Parental interest, however, decidedly needs to be more stimulating than it is at present if the visual handicaps of school children are to be definitely lessened. Too frequently dullness and laziness in school can be attributable to defective eyesight. Impairments of this kind should be remedied as soon as possible. The Department is doing everything it can to this end, but parental cooperation is essential.

Uncorrected Vision is a Real Handicap

APPENDICITIS ON THE INCREASE—Appendicitis has taken a consistently increasing toll of lives during the last ten years, according to a statement recently made by Dr. Paul A. Rothfuss, Deputy Secretary of Health. The Pennsylvania death rate in 1906 was 9.2, while in 1934 it reached 11.7.

Commenting on this situation the Deputy Secretary said, "Self-diagnosis resulting in the use of laxatives and cathartics undoubtedly is one of the causes for the unfortunate appendicitis death rate. Again, many persons suffering abdominal pains assume that it is an ordinary bowel disturbance and thus fail to obtain prompt professional advice. This tendency results in postponed diagnosis and an increase in the surgical hazard involved.

"Acute abdominal pains, under no circumstances, should suggest non-professional administration of cathartics or self-treatment of any kind. It is most unwise to assume anything in a condition of this type. Immediate medical attention is invariably indicated and should be promptly obtained."

VENEREAL DISEASE VISITS—A total of 257,106 visits were made to the Department's venereal disease clinics during 1934. This report was recently compiled and forwarded to Secretary of Health MacBride-Dexter with the explanation that a very definite increase in patronage in clinics is noted.

It was explained that the additional demands for treatment are undoubtedly associated with the present financial condition of patients who, in former times, were able to pay a private practitioner for this kind of service.

INFANTILE PARALYSIS WARNING—The recent outbreak of infantile paralysis in several southern states, caused the Department to stress the value of early diagnosis.

"While this disease did not reach alarming proportions in Pennsylvania this autumn, the value of having symptoms which are frequently associated with a common cold definitely diagnosed early cannot be overemphasized." commented Secretary of Health MacBride-Dexter.

"Measles, scarlet fever, and other maladies, including infantile paralysis, may have as their forerunner many of the usual conditions associated with the cold such as nasal secretion, a slight cough, and fever.

"Undoubtedly in the past there have been numerous cases in this State where such symptoms were permitted to run their course when in fact the condition represented, when cured, an automatically aborted case of infantile paralysis. Due to this phenomenon, health authorities in the infantile paralysis season are confronted, at least potentially, with the factor of missed cases. This is one of the reasons for these occasional sudden outbreaks of this disease in communities which apparently have been free of it. The mild and unrecognized case thus becomes the direct contact for the condition which appears in more serious form.

"While there is no desire to frighten any Pennsylvania parent, it is well for everyone interested in the welfare of children personally to realize the great preventive value involved in seeking medical advice early, even for mild conditions."

BIRTHS BY THE MILLIONS—More people than live in Chicago and Philadelphia have been born in Pennsylvania since the bureau of vital statistics filed its first birth certificate January 1, 1906.

In the twenty-nine years since that date 5,843,422 live births have been recorded. The original certificates of these events are on file in the Department's vital statistics bureau.

In this connection the Secretary of Health stated, "From the first day of school to the last afternoon of life the individual frequently needs official proof of the date of his birth. Certificates for this purpose are furnished by the bureau of vital statistics to the parents of each new born baby soon after birth."

Society makes valuable use of statistics gathered by this bureau from the records of births. Parents should carefully preserve their copies of these documents.

The Records of Millions Are Kept Here

NATIONAL HEALTH COUNCIL'S EDUCATIONAL DRIVE —Cooperating with the Medical Society of the State of Pennsylvania, the National Health Council staged a health campaign in Pennsylvania during the last half of October and the first two weeks in November. This effort was a part of a nationalized movement on the part of the Health Council to emphasize to key communities in the respective States the advantages of proper community sanitation and other public health measures.

The Pennsylvania campaign, which was under the direct leadership of the State Medical Society, with the Department cooperating, was conducted in fifty-nine cities.

Local committees composed of representatives from the Pennsylvania Nurses' Association; the Pennsylvania Teachers Association; the Pennsylvania Parent-Teachers Association; the Pennsylvania Tuberculosis Society; Federated Women's Clubs; and the State Chamber of Commerce, assisted the respective County Medical Societies in developing audiences and interest for the town meetings.

It was announced by the Medical Society of the State of Pennsylvania and the Department of Health that this activity automatically absorbed the annual State Health Day programs which, for the last three years, have been sponsored by the Medical Society. The next regular observance of the State Health Day movement will occur in October 1936.

ON THE ALERT, PEDESTRIANS!—The killing and crippling power of the automobile recently brought forth a warning from the Department. The necessity for more thoughtfulness on the part of pedestrians, both in cities and on country roads, as a method of reducing the high death rate and number of accidents was emphasized.

"Reports reaching the Department, and a study of the statistics based thereon, indicate that walkers as yet are not fully aware of the killing and crippling power of the automobile," stated Dr. Paul A. Rothfuss, Deputy Secretary of Health.

"While the public recognizes the automobile's damaging ability, it is doubtful whether the significance of the pedestrian's carelessness in connection with these casualties has been realized.

"People generally believe that the majority of automobile accidents occur when one is riding in an automobile. As a matter of fact, there are hundreds of thousands of accidents throughout the United States, of which Pennsylvania has its share, where the killed or maimed victim is crossing the street or is walking on the highway.

"In spite of jay-walking lines in cities, the habit is all too prevalent for persons to take short cuts across busy streets. The spirit of speed also prompts many to disregard safety lights and cross avenues at controlled intersections when the signal is against them.

"City dwellers must realize that while undoubtedly they have rights, they should not fail to respect the might and power of the automobile, and thus ever be on the alert.

"So long as highways lack walks, persons using them while on foot should invariably follow the walk-left-facing-traffic rule. An investigation of pedestrian deaths on highways proves that many of them have been caused by failure to respect this fundamental traffic law. To disregard this rule at any time is hazardous; not to apply it after dark is running a grave risk.

"It safely can be said that if walkers would realize the constant danger to which they are subjected through their own carelessness by the automobile, and would govern themselves accordingly, a definite drop in the automobile casualty rate would result."

POOL TESTING—Inspectors of the Department's bureau of engineering recently reported on the summer's intensive survey of 700 outdoor swimming pools. Tests were made to determine the protective facilities in the pool itself, as well as the immediate surroundings.

The highly specialized vigilance of the Department's field personnel, as well as the cooperative spirit of the operators, were given as the main reasons for the general satisfactory condition found.

RECREATIONAL CAMPS HAVE SANITATION — Reports from the Department's bureau of engineering and division of restaurant hygiene, based upon the summer surveys and investigations of the recreational camps, indicated a high degree of sanitation in the operation of kitchens and disposal of garbage.

Apparently the activities of the Department in this connection over a period of years, as well as the enlightened demands of patrons of camps, have been directly responsible for the intensive interest on the part of camp operators in supervising health features connected with organizations of this type.

Parents of children, based on the summer's reports, as well as adult campers, can look forward to next year's camping season, so far as Pennsylvania is concerned, with a high sense of security against conditions developing disease and the protection of health in general.

Recreational Camps Are Progressive In Sanitation

AID FOR EXPECTANT MOTHERS ON RELIEF—Expectant mothers on the relief rolls suffering from syphilis, which disease may be transmitted to the child, are being offered treatment under a co-operative arrangement entered into by the Department of Health with the State Emergency Relief Board.

The Department will supply drugs needed in the treatment, as well as make available the laboratory service for the necessary blood tests. The Emergency Board, in turn, will provide an increased fee for obstetrical care. Treatment will be continued six months after birth of the child.

In discussing this matter recently, the Secretary of Health said, "Health authorities generally agree that treatment, when started early and continued faithfully, gives almost absolute assurance of a living uninfected child. Expectant mothers in need of this decidedly humanitarian type of service should promptly avail themselves of it."

DIPLOMACY—A very interesting series of communications were recently received by the Genito Urinary Division from State Clinician Roy W. Gifford, M. D., Gettysburg, demonstrating the tactful disciplining of syphilitic patients who, by reason of their character and lack of treatment, were public health menaces.

Departmental experiences have indicated that many irresponsible patients suffering from venereal disease neglect to continue clinic treatment and therefore require pressure to bring them into line. Somehow this type of person interprets enforced treatment as a punishment rather than a curative factor for themselves as a fundamental public health control measure.

Tactful and diplomatic handling of such cases requires a high order of skill. It is a clinic function, however, that is absolutely essential.

SOCIAL HYGIENE MEETING—On December 5th, members of the Erie Social Hygiene Association held their annual meeting in that city.

Charles E. Miner, former executive secretary of Erie's Committee of Sixteen and now consultant of Chicago's Committee of Fifteen, delivered an address on "Law Enforcement and the Social Hygiene Program." Dr. Edgar S. Everhart, Chief of the Department's Venereal Disease Division, spoke on "Adequate Treatment of Syphilis as a Necessary Prophylactic Measure." Several hundred members and interested persons heard the presentations.

Erie, for years, has been an outstanding example of the intelligent handling of the social disease problem.

Word was received some time ago of the death of Dr. Rose S. Reis of Philadelphia. Dr. Reis came to the Department of Health in 1922 when she pioneered in supervising midwives who were active among the foreign population in the western coal fields. Since that time her work carried her over much territory in the supervision and instruction of midwives, in itinerant health work during the summer months, and in parent education and baby care at the permanent child health conferences.

As an enthusiastic worker and ardent promoter of health work, as well as a conscientious interpreter of the Department's obligations and policies, she was an outstanding professional field agent. Her kind and tactful personality long will be remembered affectionately by her co-workers in the Department.

* * *

Vital Statistics Comment

NATALITY IN PENNSYLVANIA: 1934

Florence Hardy

Statistician

RECORDS of 160,232 live births occuring in Pennsylvania in 1934 are on file in the State Bureau of Vital Statistics. This number, equivalent to a birth rate of 16.3 per 1,000 population, was higher than the 1933 total but lower than that of any other year in the period of registration in the Commonwealth. The high and low peaks for births in this State were in 1921 and 1933, respectively. Since 1927 there has been a marked yearly decline in the live births reported—a decline checked temporarily last year. In 1924 there were 197 births registered for every 100 deaths. In 1934 the proportion was 146 to every 100.

The rise in the birth rate last year can be explained, in part, by the increase in marriages. Over 7,300 more marriages were performed in 1933 than in 1932, and last year's total exceeded the 1933 figure by approximately 14,500. This increase will be reflected in the 1935 natality, judging from the birth statistics available at the present time. During the first four months of the current year 53,101 live births were recorded in Pennsylvania—an increase of 4.6 per cent over the same period in 1934.

It is interesting to compare the nationalities of the mothers in 1934 with those twenty years ago. Last year 9.5 per cent of the women giving birth to live children in this State were foreign-born. In 1915 the percentage was 37.3. The country of birth of these mothers is given in the following table:

	1915		1934	
	Number	Per Cent	Number	Per Cent
TOTAL FOREIGN-BORN	81,403	100.0	15,158	100.0
Austria	22,893	28.1	2,469	16.3
Scandinavia	724	.9	83	.5
England, Scotland, Wales	3,488	4.3	1,073	7.1
Ireland	3,501	4.3	1,158	7.6
Germany	3,499	4.3	792	5.2
Italy	17,717	21.8	3,987	26.3
Poland	5,338	6.5	1,663	11.0
Russia	13,184	16.2	1,147	7.6
Other Countries	11,059	13.6	2,786	18.4

Consideration must be given to the fact that the numbers and their percentages in this table are not comparable in all cases, due to the change in boundary lines since the War.

Of the 160,232 live births reported last year, 95 per cent were white infants, and 5 per cent, Negroes. In addition to these, 33 children were born to parents of other colored races. For every 100 females born in 1934, there were 104 male births. An illegitimacy rate was registered for the year of 33.2 per 1,000 live births. Midwives attended less than 3 per cent of the births last year, and of particular interest is the fact that 782 births occurred at which neither a physician nor midwife was present. In 1934 nearly 40 per cent of the births occurred in hospitals. This proportion was slightly higher than that prevailing in 1933 or 1932.

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PENNSYLVANIA'S HEALTH

A MONTHLY BULLETIN
of the
Department of Health

May

Edith MacBride-Dexter, M.D.

Pennsylvania's Health

Official Bulletin of the Pennsylvania State Department of Health

EDITH MacBRIDE-DEXTER, M. D., Secretary of Health
Tom Shriver, Editor

Vol. 14 Harrisburg, Pennsylvania, May, 1937 No. 1

"Acceptance for mailing at special rate of postage provided for in Section 1108, Act of October 8, 1917, authorized April 6, 1923."

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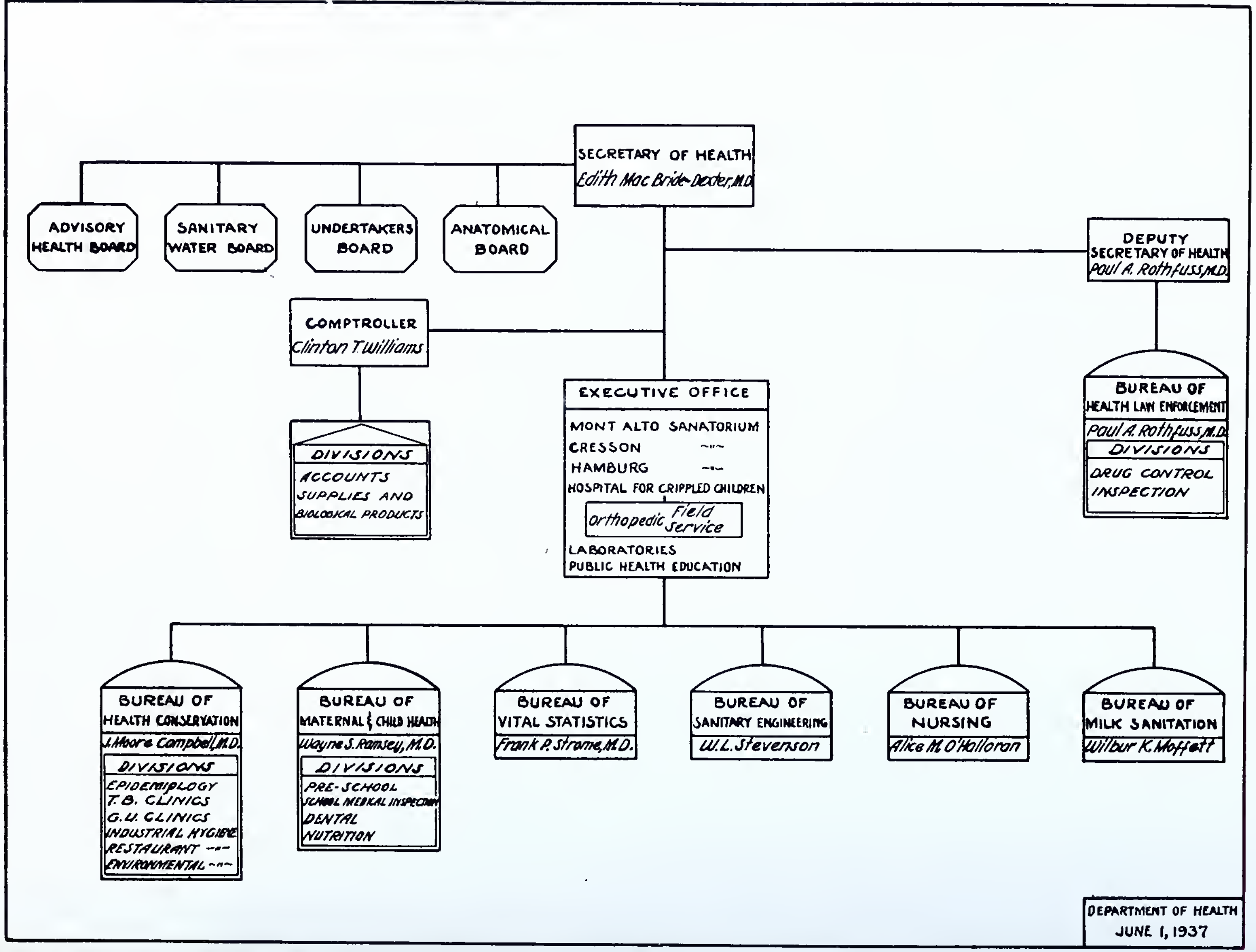
Published monthly by The Pennsylvania Department of Health Harrisburg, Pa. This Journal is free to the people of Pennsylvania. A request to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DEPARTMENT OF HEALTH
JUNE 1, 1937

CHILD HEALTH DAY

By Edith MacBride-Dexter, M.D.
Secretary of Health

A great many years ago educators and health authorities realized that there was a lack in the education of the school child in regard to his physical health, but it was not until we entered the World War in 1917, that this lack was forcibly brought to the attention of the nation.

Then a large proportion of our young men were rejected as physically unfit for service in the Army and Navy, and the records of these examinations, when tabulated and studied, pointed definitely to a lack of physical and hygienic instruction in the elementary years as largely responsible for this result.

With the publication of these reports in 1920, the school and health authorities began work on the problem of child health education, although at that time little co-ordination of effort was possible. In 1925 the movement took more concrete form and the summer round-up sponsored by the National Congress of Parents and Teachers had its beginning.

Last year of the 183,472 children throughout the nation entering school for the first time, 98,339 had been examined in the summer round-up. In Pennsylvania for the past five years, between 50 and 60 per cent of the school children entering school for the first time have been reached through this campaign.

In 1928 the State and Provincial Health Authorities of North America took an active part in the movement, and at its annual conference on May 18th passed a resolution which inspired Congress to ask that the President proclaim May Day as Child Health Day, with the day to be sponsored by the Federal Children's Bureau. Thus began the present nationwide movement.

Since that time the American Child Health Association has taken an active interest in the problem.

The White House Conference on Child Health was a definite step in advance and marked the active participation of our national government in the cause of child health. This year President Roosevelt, under the authority of the Congressional resolution, set forth a proclamation calling upon the people of the United States to take part in the ceremonies and join those taking an active part in the work.

His Excellency, Governor George H. Earle, also issued a proclamation setting forth Saturday, May 1st as May Day for child health.

Now in 1937, Child Health Day is recognized by egencies throughout the country, with organized and well directed efforts to correlate and co-ordinate the work of these various agencies.

Newspapers and radio have contributed generously of space and time in this health crusade, until almost every family in America has been made Child Health Day conscious, and the growth of this event and its importance to every American home has been impressed on our citizens.

In Pennsylvania much that is worthwhile is being done for our school children. The law requires that each school child be given a complete medical inspection at least once every year. In the fourth class districts attended by nearly 800,000 rural children, the responsibility for carrying on school medical inspection falls entirely upon the State Department of Health.

In the first, second, and third class districts the law provides that the expense of medical inspection be borne by the local communities, and that the State shall supervise the work.

For the past 16 years sufficient funds have not been available to provide for complete medical inspection in the fourth class districts. Accordingly, inspections have been conducted only in those districts where the need appeared greatest.

The purpose of these inspections is to discover the more obvious and apparent physical defects, such as in the eyes, ears, teeth, heart, tonsils, obstructions of the nasal passages, malnutrition and other conditions.

Inspections are made by physicians at an established rate for each child examined The reports of the examinations are sent to the central office of the Division of School Medical Inspection of the Department of Health, from which cards noting the defects of each child are returned to the teachers, to be given to the parents of the children.

On the surface, such a system would appear to be adequate. The child is examined, defects are discovered, and the parents are notified so that steps can be taken to obtain corrections. There has been one flaw however, which has served to encumber the system almost since its inception. Nowhere does the law provide for funds to pay for medical, dental, and surgical treatment for childrem of indigent parents.

Consequently much of the value of school medical inspection is lost. It should be apparent that the vast majority of school children who are defective come from families which are either indigent or so near the border line that they are unable to provide for medical care except where it is absolutely necessary.

The result has been that throughout the years, the percentage of corrections obtained as a result of follow-up after school inspection has been discouragingly small.

In the rural or fourth class school districts these results have been most discouraging. During the last school year 70.4 per cent of the children examined had one or more of the physical defects previously mentioned. Of these, corrections were obtained for only 21.9 per cent. In the other school districts the percentage of corrections was as follows;

First Class --------------	45 per cent
Second Class -------------	60.4 per cent
Third Class -------------	50.9 per cent

In the more concentrated areas of population, while the situation is still acute, it may be seen by these figures that the children are better cared for than in the rural districts.

In the cities, the children of poor parents can obtain treatment at various public clinics, at hospitals, or through the aid of public spirited organizations and other agencies. These facilities are not available to the same degree in our rural communities, and the 800,000 children in the fourth class districts suffer accordingly.

To understand why the State has not taken steps to alleviate this situation it is necessary to explain the underlying principle on which the Department of Health was founded. Primarily the Department was created to protect the public health by preventing disease and maintaining the highest possible standards of sanitation throughout the Commonwealth.

The first concern of our army of health workers has been to eliminate wherever possible, conditions conducive to disease, such as improper community sanitation, impure water supplies, and to enforce quarantine laws in cases of contagion. Only in such diseases as tuberculosis and venereal infections, which create a real menace to public health, has the State departed in its rigid policy of prevention.

Consequently, the Department's effort in the line of obtaining corrections of defects in school children has been to stimulate wherever possible, some interest in the condition of indigent school children, and to urge closer cooperation and better coordination between the activities of organizations and agencies which are to-day active in that field.

Briefly, the situation that the Department found in the fourth class school districts during the school year just past was as follows; One out of every five children examined suffered from defective vision in some degree. Two out of every hundred, examined by the mere process of noting the reaction to a question stated in a low tone of voice, were found to have defective hearing.

More than half of those examined had decayed teeth-- and these examinations were made by physicians rather than by dentists using proper equipment. One fourth of the children suffered from defective tonsils, a condition which can have serious effects upon the entire body of a growing child.

One child in every hundred, examined with his clothes on, was found to have a defective heart. Such an examination, the only one permitted by law, can discover only the more apparent cause of heart disease.

That is the picture in Pennsylvania to-day. To some degree, conditions are the same in the entire nation.

The main object of Child Health Day is to give the 70 per cent of our children the same chance for life enjoyed by the more fortunate 30 per cent--- the chance for life they have every reason to expect. It is not in any sense the mere celebration of a single day out of the 365 in the year that counts, but the fact that this celebration is intended to stimulate interest in the fate of suffering children.

There are some who will say that it is not a responsibility of theirs and will deliver some smug aphorism to the effect that it is the fault of a system over which they have no control.

True, the physical condition of many of these children is the result of economic circumstances. But more to the point is the fact that these same circumstances stand in the way of any movement designed to alleviate the condition. If those who are not pinched by the economic shoe join together in an effort to help those who are, great good will be accomplished in our commonwealth.

On May Day, in Pennsylvania and throughout the nation, public spirited citizens who are not content to let things slide, will band together in the opening skirmish of a campaign scheduled to last all summer. It is their purpose to reduce the number of children entering school life handicapped by physical defects.

The State has been organized down to the last county, with the Department of Health's county medical directors in charge of local activities. Many physicians nurses, school officials, and civic minded citizens are giving their time to make this initial effort a success.

Clinics are being held throughout the State for the examination of children. Various demonstrations of the work that can be done are being held. At all of our schools, May Day celebrations will lay emphasis on health.

Throughout the summer, the Department of Health nurses and physicians in cooperation with the school authorities will be engaged in a round-up of children entering school in September. The purpose of the round up is to send children to the entering grades in good physical and mental condition. Medical men and dental societies will be asked to cooperate wtih their local communities. Children will be examined for defects, and steps will be taken to obtain corrections.

Every taxpayer and citizen in Pennsylvania has a stake in this campaign. Let me give warning here that affections of the teeth, ears, eyes, and heart are not stationary, but progressive, frequently becoming worse as the years go by.

The 70 per cent of our children who have such defects cannot be permitted to grow up untreated. In communities which today are providing funds for medical care for the indigent, it should be regarded as good business to treat these children before their defects become too serious.

It has been shown by various studies and reports that it takes longer to educate a child whose hearing or sight is defective, or who is suffering from malnutrition. A child entering school with some remediable defect is an unnecessary burden upon the taxpayer. He is forced to miss classes because of illness, is unable to keep up with his studies, and as a result he must repeat grades.

These are facts which merit the consideration of every thinking man and woman in Pennsylvania.

The child of to-day is the leader of tomorrow. If we would insure the future development of our fine Commonwealth we must first insure the health of our growing generation of children.

For this reason the Department of Health very heartily endorses the principles and ideals upon which Child Health Day is based, and every citizen of Pennsylvania is urged to join with the organizations that are participating in this program and make our Summer Round-Up of 1937 the most successful ever attempted.

Let the Commonwealth of Pennsylvania lead the nation in this work.

The foregoing article is taken intact from a radio address delivered by Dr. Edith MacBride-Dexter, Secretary of Health, over Radio Station WHP, in the City of Harrisburg, on Wednesday April 28th.

The radio talk by Dr. MacBride-Dexter was a part of the preparation for the annual celebration of Child Health Day in Pennsylvania.

* * *

On Tuesday, April 27th, Dr. MacBride-Dexter addressed a meeting of the Lion's Club of York Pa. Her subject was " New and Re-Established Services of the Department of Health." Copies of this address are now in pamphlet form and will be mailed upon request to the State Department of Health, Harrisburg Pa.

NEW MEANING FOR MOTHER'S DAY

By Wayne S. Ramsey, M.D. Director
Maternal and Child Health Bureau

The annual observance of "Mother's Day" started in Pennsylvania 29 years ago, and gained recognition in the nation in 1914 when President Woodrow Wilson issued a proclamation setting aside the second Sunday in May as a "Day set aside to pay proper tribute to all mothers."

Of more recent origin is the plan to utilize it as a day to stress the need for greater vigilance in maternal health.

It is a startling indictment of our advanced civilization,but nevertheless true, that in the United States the death rate for mothers in childbirth is now higher than in any other civilized nation.

Despite the intensive efforts on the part of the medical profession, the death rate from this cause continues to be a discredit on the public health record. We are fortunate in Pennsylvania in being able to state that in 1936 the maternal mortality was the lowest in the 31 years of the Health Department's existence. But even so, 819 deaths actually occurred during the year.

At least two-thirds of these mothers did not need to die. They gave their lives because they did not receive the benefits of modern medical discoveries. In some very isolated cases it was difficult to bring the proper medical care to the expectant mother, but in most cases failure to secure the care of a competent doctor early in pregnancy can be attributed largely to ignorance or negligence.

From figures supplied by the Bureau of Vital Statistics it can be shown that since the beginning of registration, 41,190 puerperal deaths have been recorded in this State. The highest death rate from causes associated with childbirth was recorded in 1918 when the influenza epidemic directly affected the mortality from many diseases.

Today, a maternal death occurs on an average of every ten hours. Like tuberculosis, puerperal death exacts its toll among women in their most useful years. Unlike tuberculosis, however, puerperal mortality has remained practically stationary during the past 25 years.

Septicemia is the leading cause of maternal deaths. Last year in Pennsylvania, 321 deaths or 39% were assigned to this tragic complication. Of this number, close to half were specified as abortions. If criminal abortions, considered statistically among the homicides, were included in this total, the number would be increased considerably.

The causes of the puerperal deaths in 1936

Abortion with septic conditions -----------	132
Abortion, septic condition unstated -------	39
Ectopic gestation -------------------------	33
Other accidents of pregnancy (excluding hemorrhages) -------	5
Puerperal hemorrhage ----------------------	99
Puerperal septicemia ----------------------	189
Puerperal albuminúria and eclampsia -------	118
Other toxemias of pregnancy --------------	36
Puerperal phlegmasia alba dolens, embolus --	60

MATERNAL MORTALITY IN PENNSYLVANIA COUNTIES: 1936.

COUNTY	NUMBER	RATE*	COUNTY	NUMBER	RATE*
STATE TOTAL	819	5.0			
Adams	0	-	Lackawanna	37	7.3
Allegheny	100	4.6	Lancaster	11	2.9
Armstrong	4	2.5	Lawrence	8	4.4
Beaver	16	6.3	Lebanon	6	4.7
Bedford	4	4.9	Lehigh	14	4.3
Berks	17	4.7	Luzerne	51	6.7
Blair	15	6.0	Lycoming	9	5.5
Bradford	7	6.9	McKean	10	9.1
Bucks	3	2.3	Mercer	9	6.2
Butler	6	4.0	Mifflin	2	2.2
Cambria	24	5.5	Monroe	4	7.8
Cameron	0	-	Montgomery	23	5.9
Carbon	4	4.7	Montour	12	20.1
Centre	7	5.6	Northampton	11	4.8
Chester	6	2.7	Northumberland	8	4.3
Clarion	3	3.9	Perry	0	-
Clearfield	6	3.1	Philadelphia	167	5.4
Clinton	2	3.0	Pike	0	-
Columbia	4	4.7	Potter	0	-
Crawford	3	2.4	Schuylkill	31	7.1
Cumberland	5	4.4	Snyder	0	-
Dauphin	13	4.3	Somerset	4	2.2
Delaware	25	7.7	Sullivan	0	-
Elk	5	7.0	Susquehanna	1	1.9
Erie	14	4.7	Tioga	2	3.1
Fayette	22	5.4	Union	0	-
Forest	0	-	Venango	6	5.0
Franklin	4	3.1	Warren	4	6.9
Fulton	1	4.5	Washington	15	3.9
Greene	7	7.7	Wayne	0	-
Huntingdon	7	7.3	Westmoreland	17	3.4
Indiana	9	5.2	Wyoming	0	-
Jefferson	6	6.3	York	8	2.5
Juniata	0	-			

* Rates are per 1,000 total births.

Other accidents of childbirth	105
Other and unspecified conditions of puerperal state	3
TOTAL	8I9

Of the 819 maternal deaths in Pennsylvania last year, the greatest number occured in March, with the minimum in October. Slightly more than half of these deaths were registered in the first six months of the year which was due possibly to the high respiratory mortality prevailing in January, February and March.

There were 55 deaths of girls under twenty years of age from puerperal causes. Of this number, 16 were unmarried. At the other age extreme, 86 women over 40 years of age succumbed to diseases associated with childbirth. By far, the largest number (678) of fatalities from this cause occurs in women between the ages of 20 to 40 years. Deaths of colored women constituted only 8 per cent of the total.

Of the 819 deaths recorded, 747 were of married women, 55 of single women, 10 of widows, 4 of divorcees and on three certificates the marital condition was not stated. Hospital deaths formed 77 per cent of all maternal deaths while 4 fatalities occured in State institutions. Over 90 % of the women, whose deaths were due to puerperal causes in 1936, were native born.

The table on the preceding page gives the maternal mortality in Pennsylvania counties last year. The totals in this table, compiled by the Bureau of Vital Statistics, are not adjusted for residence which will explain the excessive rates in counties whose hospitals serve a large surrounding area.

Until maternal mortality is lowered in Pennsylvania, Mother's Day cannot take on its proper signifigance, " a day to pay tribute to all mothers".

MAY DAY IN THE SCHOOL

By Ted A. Rosenberg, Chief
School Medical Inspection

May Day marked the inauguration of the annual Summer Health Round-Up of pre-school children in Pennsylvania. The importance of this work cannot be stressed too highly as it is in a large measure laying the foundations of healthy bodies and minds in the future citizenry of our State.

The School Division is primarily interested in the health of the child already in school, but we recognize the fact that the pre-school child will soon be in school and will then come under the medical supervision of the Department of Health. Every child has a right to a fair chance. This means that he shall have a good start in life, free from mental or physical handicap.

Our leading educators recognize the fact that health is one of the primary aims of education, and all of the mental knowledge a child receives is often wasted on a weak body.

The School Division of the Health Department has been anxious to give the school children in the Fourth Class districts equal health opportunities with those of the First, Second, and Third Class districts, and we pay the bill annually for the medical examinations of these children.

Our records, however, show us that a great many examinations are wasted because of the failure of the parents and teachers to follow them up and gain the necessary corrections. Our job is to find the defects in the child, if there are any, but it is up to their parents to see to it that these defects are remedied.

We have been greatly aided by civic groups and welfare societies in obtaining treatment and also corrections for indigent children, but the percentage of corrections obtained in the Fourth Class districts is far from satisfactory.

Only 21.9 per cent of the defects found in the children of the Fourth Class districts are corrected while the other 78.1 percent are apparently neglected. The purpose and value of school medical examinations is thus defeated if we fail to follow up and correct the defects that are reported.

There is no provision in our laws for follow up work after medical examination, so we appeal to the parents in the Fourth Class districts especially, to heed the Advice Slips sent from the School Division of the Department of Health, so that they may give their boy or girl the chance to be healthy and happy.

Many cases of sickness or injury are often the result of being negligent. Preserving the health heritage of the child is vastly better than attempting to repair the result of neglect. The job of building up positive health is never completed, but it takes only a few defects to tear down a once healthy body.

Angelo Patri, noted educator, says," School is wasted on a child not fit from his head to heels."

The Department of Health is well pleased with the accomplishments and results obtained in our annual sanitary survey of school buildings. Many Fourth Class schools are still in the old-fashioned, one-room wooden buildings, lacking proper drinking water or sewage disposal facilities, but during this year we have been successful in getting local school boards to improve these conditions in many instances.

We are grateful for the splendid cooperation given to us by the Medical Inspectors, Health Officers, County Superintendents, Teachers, and School Directors, in cleaning up the unsanitary conditions that were reported to us. Almost every school in the State has been given a sanitary survey this year, and the results obtained have been gratifying.

Recently the terrible disaster in Texas took the lives of over 400 school children. Immediately following this disaster the School Division, acting on the orders of both Governor Earle, and our own Secretary of Health, Dr. Edith MacBride-Dexter, asked every School Board in the State to appoint a committee to investigate the health and safety conditions of its schools, and we are happy to announce that the school children of this Commonwealth will henceforth be entering buildings that are not only safe, but also healthful.

We have issued orders not to permit any school to re-open next fall that fails to meet the health and safety requirements coming under the School Code.

In a State sending over two million children to the public schools, health protection is a tremendous task, but with the aid of the parents, school officials, and health authorities, we feel confident that in the future your child will receive more health opportunity than ever before.

The future of the Commonwealth and the Nation depends upon the future of our children. Is it not the duty of each of us to insure for them the best kind of health along with a reasonable amount of happiness ? Let us all, beginning today, spend 365 days a year in carrying out plans to build and improve child health throughout the Commonwealth of Pennsylvania.

DEPARTMENT BRIEFS

In connection with the annual celebration of May Day as Child Health Day, Dr Edith MacBride-Dexter, delivered a radio talk over Radio Station WHP on May 1. Her subject was " Immunize the Child," and the complete text of her address will be found on Page 17

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Ted A. Rosenberg, chief of the School Medical Division, was also listed for a radio talk over WHP on May 1. He spoke on " May Day in the School." The complete text of his talk is to be found on Page 13.

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On April 22, at the request of the Commanding Officer of the United States Army barracks at Carlisle, army medical officers attached to the barracks were given a demonstration of the work and facilities of the Department of Health.

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Messrs. V.F. Opalski of Austria, and Verdi DeLisle of France made a personal examination of the methods and procedures in use in the Department, in order to familiarize themselves with the various ways in which Pennsylvania handles its great volume of Vital Statistics detail

IMMUNIZE THE CHILD

By Edith MacBride-Dexter, M.D.
Secretary of Health

Fifty years ago one may have dreamed of the eventual disappearance of some of the diseases which had claimed and were continuing to take thousands of lives each year. The discoveries of germs causing some of these diseases, which were beginning to be made at about this time, might have justified notions so extravagant, but would no doubt also have earned for anyone who might have seriously published them a reputation for unwarranted optimism.

The lapse of even so short a period in human affairs as less than a man's lifetime has proved that what might have been considered crack-brained predictions have turned out to be real hard facts. So teue is this that medical men, research workers, and health officers not infrequently refer to some of these diseases as vanished or vanishing.

Smallpox, for instance, has disappeared from every community where vaccination is effectively used. You may be interested to know that there has not been a case of smallpox in our Commonwealth in five years due entirely to vaccination.

Yellow fever is no longer known along our Mexican Gulf shores, in the West Indies, Panama, or in South American countries, where for generations it had been firmly entrenched.

Typhus fever has gone from our ships, jails, and our slums.

These infections have been banished and will remain banished so long as what has been learned of their prevention continues to be put into effect.

Tuberculosis is declining.

Typhoid fever in many of the States of the Union, including Pennsylvania, is now spread out so thinly as to be relatively unnoticeable.

How the conquest of these plagues has been brought about, each in its own different way, would make a long and intriguing story, bringing us down to the period during which another has been added to the list of vanishing diseases --- this time, Diphtheria.

Not more than thirty-five years ago Diphtheria stood out as one of the most to be dreaded of all the diseases of children. They died from it by thousands each year, death occurring to almost half of the total number stricken.

It is true that this ugly picture was very much altered by the discovery and use of antitoxin, but as time passed the limitations not of antitoxin itself, perhaps, but of its widespread and early use were gradually discerned. Antitoxin, while it saved innumerable lives, did not to any appreciable degree limit the occurrence of the disease itself, and the deaths each year were still numerous.

It takes us a long while sometimes to see and grasp the signifigance of things which lie right under our nose. Ever since 1892 horses were being injected with Diphtheria poison in order to create in their blood the antitoxin subsequently taken from the horse and prepared to be given to the human who was ill with Diphtheria and needed it.

Almost twenty-five years rolled around until at last it dawned upon an Austrian research worker that it might be possible to treat the well child just as the horse had long been treated, but instead of robbing him of his blood, and the antitoxin in it, which this treatment had created, to let him keep the antitoxin in his blood and so make him resistant, or immune, as we say, to any Diphtheria germs which might thereafter find lodgment in his throat.

This Austrian, Doctor Bela Schick, convinced himself and then the world that the giving of a mixture of Diphtheria toxin and antitoxin to a child in an appropriate quantity and number of doses actually would immunize the child against Diphtheria, just as for years it had been known that horses could be immunized.

Through further research toxoid has replaced the original toxin-antitoxin and Diphtheria at last is a vanishing disease.

What toxoid has meant to Pennsylvania children can be strikingly illustrated by the records of our own Department of Health. Back in 1906, when there was antitoxin for treatment, it is true, but nothing in the way of permanent prevention, there occurred in Pennsylvania 10,870 cases of the diseases and 2,538 of these children died.

Year after year from 1906 up to 1921, figures were essentially the same--- sometimes a little better sometimes even worse than they had been in 1906. In 1921 there were 20,794 cases and 1,983 deaths.

In that year the Department of Health began to interest doctors and parents in immunization against Diphtheria. It has continued since in every possible way to keep this interest alive and to help practically toward the elimination of Diphtheria by furnishing without cost the toxoid necessary to this end.

In 1935 the whole number of cases of the dread Diphtheria in Pennsylvania was only 2,248, being nearly three hundred less than the deaths alone in 1906. The deaths in 1935 numbered only 155.

The final figures for 1936 are still being tabulated but the record for that year will be even better.

The fifteen years of our struggle against this disease prior to 1921 meant much by way of life saving; the fifteen years which have followed 1921 have been tremendously more spectacular, and at first blush might give rise to the feeling that real progress had been made, and that parents, physicians, and the Department of Health could not be too much commended on the result.

In a way this may be true, but there were 155 deaths in 1935, 221 deaths in 1934, and so on back. A record that is glaringly ready to rebuke any smug satisfaction that anyone might want to take from the results.

Mark, all of you, that at any time during the last fifteen years there has been knowledge and ability and material, had it been fully used, to have made avoidable, we believe, not only the 155 deaths of 1935, but also the several hundred in each of the other years back to 1921.

In other words, had all of this knowledge and these facilities been used to the limit since they were first provided, Diphtheria might now be listed as vanished, instead of a vanishing disease.

It may be harsh, even brutal, to mention but in the last analysis it would almost seem as though there were no excuse for a single death from Diphtheria today, and hasn't been for many years. After all the initiative must be taken by the parent. The doctor or health officer can urge, but the child belongs to his parents, and does not belong to the State.

Perhaps it is fundamentally human to delay and neglect. There is an age old proverb about locking the stable after the horse is stolen, while everybody knows of the hill-billy song-- The Arkansas Traveller- wherein the denizen didn't bother to patch his roof if the weather was clear and couldn't or wouldn't do it when it rained.

Too many of us are still late stable lockers and too little interested at a time when we might be on the leaking roof. Less than ten minutes in the office of a doctor, or at the clinic, may make all the difference between a long, useful life, and an untimely death due to Diphtheria. But the time to make the visit is now.

No child is too young to take out this anti-Diphtheria insurance. As a matter of fact it is urged that he be given it when he is only six months old. He needs it very much from then up until his fifth or his sixth year because during that time he is susceptible to Diphtheria and if he gets the disease is most liekly to die from it, regardless of how well and promptly he may be treated.

Youngsters all through their early school life are not well out of the woods, although as childhood and adolescence merge one into another and at last into adult life a natural immunity is gradually acquired.

The burden of our song is that probably not a single child today should die from Diphtheria, that a treatment requiring only a few minutes will save him, that it is the responsibility of the parent to think and act for the child who cannot think and act for himself, and that the time the parent should think and act is right now.

CHEST SURGERY

As part of the modern technique in the treatment of tuberculosis, emphasis is now being placed on Chest Surgery in certain urgent cases. For sometime patients urgently in need of such treatments have been sent to Philadelphia from the three State Sanatoria for these operations.

With the sum of $ 5,000 secured from the United States Public Health Service under Social Security, a temporary operating room has now been equipped at the Hamburg Sanatorium to which patients needing Surgery will be sent in the future.

This operating room, which was opened on May 19, is in charge of Dr. Moses Behrend, one of the leading chest surgeons in the City of Philadelphia.

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NEW SURGICAL UNIT

Immediately after delivering an address at the York Lion's Club on " New and Re-Established Services of the Department of Health," Dr. MacBride-Dexter left by motor for Hamburg on Tuesday, April 27th, to break ground for the new surgical unit that is being erected at the State Sanatorium.

During the special session of the Legislature in 1936 the sum of $ 150,000 was appropriated to the Department of Health for beds for patients suffering from tuberculosis. In view of the modern development in the treatment of tuberculosis, and the importance of Chest Surgery, it was felt that this money could best be used to build a permanent unit at Hamburg to meet all surgical requirements.

The new unit will accomodate 38 patients, and will be equipped with two modern operating rooms.

FURTHER ATTACK ON TUBERCULOSIS

By J.Moore Campbell, M.D. Director,
Bureau of Health Conservation

In Pennsylvania, since 1906, exactly 9,258 persons succumbed to tuberculosis of the lungs, and a total of fifteen hundred more died of tuberculosis of other tissues.

The great majority of these unfortunates were young men and women just at an age when they were finding their places in the world; just at an age, perhaps, when they were beginning to make some headway in life; and just at an age when they were worth most to their communities and their dependents.

That is the age at which tuberculosis usually kills.

The statisticians tell us that these 9,258 lung tuberculosis deaths meant that at that time 129 out of every 100,000 of our people were dying from this disease alone. There was no other single disease that was killing so many.

Just thirty years later, in 1936, 4,334 died. While this figure is only about one-half as big as that of 1906, looking at it in that way does not convey its full signifigance. There were thousands more people in the State in 1936 than there were in 1906 and when the 4,334 deaths are distributed according to the 1936 population only 42 in every 100,000 are found to have died from lung tuberculosis.

The 42 compares much more favorably with 129 than the 4,334 does with 9,258. Perhaps what has happened can be more readily grasped by saying that if people had continued to die, as the State grew in population, at the same old 1906 rate, there would have been 13,029 deaths from lung tuberculosis in 1936.

Compare that with 4,334 !

If this loss of life would continue to shrink without fail, at the same annual rate it has for the past thirty years one might rightly predict that in another fifteen years --- say by 1952 or thereabouts -- tuberculosis could be written off as a liability in the bookkeeping of Pennsylvania lives because there would be no more of it.

Right here some one will be sure to say--" Yes, but then we've heard about these statisticians. They'll prove you anything you want proved-- if you care to believe them". We shall admit that the making of any such prediction would be rash--and for many reasons.

For one-- the ways of the human in the mass are no less queer than those of Bret Harte's Chinee. Reactions, impulses, behavior are not predictable with the certainty of moon eclipses or the variable positions of the stars in the sky from time to time.

Mankind has been endowed with a free will- and sometimes not much else to direct him in exercising it. He is tenacious of life but apt to take its continuance too much for granted-- to neglect his opportunities to conserve it.

In a very considerable measure escape of the individual from preventable or postponable ills or even death, depends largely upon himself and his fellows. The problem is to cause him and them to think and do for their individual and mutual physical weal-- perhaps a consummation of the millenium.

Further acting as a brake on any hasty prediction about tuberculosis in 1952 is the difficulty of wiping out that remmant that doggedly persists without excuse-- as we have learned in our struggle with typhoid fever, smallpox, and diphtheria, each of them more amenable to conquest than tuberculosis.

The last few deaths per 100,000-- like the last long mile with musket and pack-- are the toughest.

All that can be said with assurance is that even at the present moment there lies ready at hand a sufficient knowledge of the disease to remove from the ridiculous the prophecy suggested, if that knowledge can be convincingly impressed upon those concerned and then used by every one. In the meantime, too, further research may evolve simpler and more easily applicable means toward the end.

Omitting for our purpose the fact that some types of tuberculosis may be the result of the use of milk from cattle infected with the disease but reminding in passing that with the elimination of tuberculous herds, and with the pasteurization of milk these are becoming more and more rare, tuberculosis is always a "contact" disease, just as is measles or mumps.

It is not hereditary, as perhaps some still think, and even the robust may contract it. All that is necessary to infection is association--"contact "- with one who already has it. In various ways the germs in his sputum find entrance into those about him.

The development of the disease in the lungs is insidious and gradual, except only occasionally. There are no immediate results of infection as in the case of measles, scarlet fever, or diphtheria. While there is a more or less general fear of tuberculosis the very fact that the effects of infection are delayed tends to minimize in the mind the danger that lies in contact.

One fools around, sometimes, with the stomach ache that heralds appendicitis, but wastes no time if the pain from the beginning is sharp and in what he is sure is the " right " place.

There are only three fundemental essentials in the control of any contact disease unless it is within our power to immunize against it, and then immunization suffices.

These are, first, the detection and isolation of the person who has it; second, a search for the real source of his infection--always another case of the same disease; and third, the observation or study of the contacts of each of these to learn whether they too have been infected or not. And this holds good for tuberculosis.

More and more of late years has this been appreciated and this conception of tuberculosis control dictates today's control methods-- on paper, this is quite simple; in practice, not so easy, but by no means impracticable.

The further characteristics of tuberculosis is not to be overlooked. They have a very distinct bearing on the wide prevalence of it. The case remains infectious for a long period of time, sometimes months, or even years.

Opportunity for the infection of others is therefore prolonged, constantly occurring, and the escape of those about him consequently the less likely. Furthermore children are quite susceptible-- so much so that most of us have picked up the disease, but fortunately, have been able to overcome it before it reached a very manifest stage.

In overcoming the early appearance of tuberculosis we have acquired an increased resistance or relative immunity to future infections with it.

Once having had-the infection, we develop a peculiar sensitivity to the substance of the germ. When a preparation of this, known as tuberculin, is injected into the skin, the skin becomes inflamed if the person has, or in the past has had tuberculosis-- of the lungs or anywhere else. If the person never had tuberculosis this typical inflammatory reaction does not occur.

Here is a bit of our knowledge which serves to launch the search for the case, to locate which is the first essential toward the eliminating of all tuberculosis. By tuberculin testing large groups of persons, the reactors, those who have or have had the disease are brought to light.

These groups can readily be reached in our schools. Not only are they thus accessible, but they constitute an important group to reach. Serious trouble is very likely to have its beginning in the teen age-- the high school age-- although it may be years before the disease will progress to a serious or hopeless stage.

A positive tuberculin reaction, it should be made clear, does not in any specific case mean present and active tuberculosis. We already have said it only means that at some time that individual has had the infection. He may have " lived it down."

We expect adults rather routinely to give a positive reaction but we know that only a relatively small proportion of them actually have an active tuberculosis. Perhaps on an average 15 to 25 percent of high school students have positive reactions-- and only a fraction of these will be found to be suffering from active tuberculosis.

Now the question arise," How can you tell the tuberculous from those whose original infection has been healed or " cured"?

This is done by making X-Ray pictures of the lungs. Tuberculin testing, without X-Ray follow-up is worse than useless because it does not tell the whole story and leaves the person himself and those who are interested in his welfare in anxious suspense.

In children, particularly, very active tuberculosis may be present for a long time before it gives a single sign or symptom attracting notice or which the physician by any other means than the X-Ray can detect. The child may be a " picture of health", and still have hidden traces of tuberculosis.

Most often chest tuberculosis in children is an infection of the lymph glands about the " roots" of the lungs-- where the first branch of the windpipe goes into the lungs. The tuberculous lymph glands usually heal of themselves and give no sign.

Again, they may not heal and as time goes on the infection spreads from them to the lung tissue itself, leading eventually to gradual destruction of the lung and the occurrence of a cough, expectoration, a loss of weight and strength and easily detected signs in the chest; in short, the picture that has long been known as " consumption."

So, by combing the high school students with tuberculin and X-Ray, unsuspected cases are diagnosed and put into the hands of their physicians at a time when much can be done for their receovery.

But from the standpoint of control the discovery of this case is only a first step. He was infected by some one else. The next question is " Who ? " More often that somebody is in his own home-- mother, father, uncle, aunt, older brother, or sister.

The search for these sources include the examination of them all and in this way are unsuspected cases or "spreaders" found. Knowledge of his condition of itself makes possible care on the part of the "spreader" for the protection of those about him. Their safety can be more perfectly assured if he can be hospitalized and so separated from his family, at least until he has so far recovered as to have a germ-free sputum and be no longer a menace to others. Modern methods of treatment, including chest surgery, offer much, not only toward making him non-infectious but for his recovery as well.

The key to tuberculosis control is this case finding. Used as it should be, the found cases open the way to the case behind it and to others that the original case has endangered and may, perhaps, have likewise infected.

Multiply the one by hundreds and something of what tuberculin and X-Ray mean in the future attack on tuberculosis begins to be apparent; hundreds of unsuspected cases found and cured or placed under control before they become so far advanced as to be a serious menace to others; hundreds of sources of infection are likewise found and given a chance for recovery.

It is not an impossible job, and it has been seriously tackled by the Department of Health. With the cooperation of the medical profession, and the parents, we will see it through.

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In connection with this drive on tuberculosis, Dr. Edith MacBride-Dexter spoke before the spring meeting of the Board of Directors of the Pennsylvania Tuberculosis Society at the Harrisburger Hotel on May 19th, stressing the work now being done by the Department of Health in the crusade against tuberculosis.

IN THE MOVIES

During the past year the most modern of motion picture equipment has been added to the Department of Health's bureau of Public Health Education, and movie demonstrations are now being given throughout the State.

The first movie produced by the Department was titled " The Care of Crippled Children by the Commonwealth of Pennsylvania." Many of the scenes are laid at the site of the Crippled Children's Hospital at Elizabethtown, and the reel is complete in every detail.

Starting at the point where the field nurse locates the crippled child, the film carries along to the diagnostic clinic, follows the route of the child to the hospital, and then treats of the care taken by the staff doctors and nurses in completing a cure.

The second picture has been titled," Rivers of Acid," and deals with the work of the Bureau of Engineers in sealing abandoned coal mines. This picture was almost six months in the making, and scenes cover a large section of the State's coal regions.

In the first scenes are shown the abandoned mine, with the stream of sulphuric acid flowing along to kill all vegetation enroute to the nearest stream, where aquatic life falls victim to the deadly acid.

The picture shows at a later date the results which come through the sealing of these abandoned mines and the reduction, or complete elimination of these Rivers of Acid.

Both pictures have been shown in various parts of the State and have met with instant approval by audiences that comprise virtually every section of professional life in the Commonwealth.

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HEALTH IN VACATIONLAND

By R.W.Shelton, Chief
Restaurant Hygiene Division

The lure of the open road is now gripping the nation, and few States can offer a better spot for a real vacation than Pennsylvania. Within the borders of the State are found rugged mountains, picturesque lakes, trout-laden streams, and rich farmlands.

The Department of Health extends an invitation at this time to visitors from other States to pay a visit to Pennsylvania and enjoy our splendid highways, our grand scenery, and to partake of our hospitality. Visitors can come to Pennsylvania with the assurance that the Department of Health has taken every precaution to guard their health, and protect them from all communicable disease.

Pure water, pure milk, pure food, are found in the State wherever the visitor may stop. Whether he is enjoying a meal at a fine hotel, or eating lunch at a road-side stand, he has the assurance of cleanliness.

The citizens of our State, as well as visitors within our borders, should know that a certificate of good health is required of all food and drink handlers by both the State Department of Health and municipal health authorities.

Every public eating and drinking place in the State is required to undergo a general sanitary inspection twice each year.

This, of course, is right and proper. Too often the public's attention is diverted away from all matters of general health by the lure of pleasure.

That is why the Department is striving so vigorously to enforce every sanitary protection. In recognizing one of its primary functions, the Department has appealed for public co-operation, especially at the roadside stands, vacation parks, and summer resorts that cater especially to crowds of vacation-bound pleasure seekers.

It is common knowledge that public health and hygiene are indispensable to real beneficial living in the outdoors. Not only are the health and comfort of travellers from other States affected, but likewise involved are the security and welfare of millions of Pennsylvanians.

The task is no easy one. But by utilizing all available means at its command and conducting supervisory campaigns through county health officers and district inspectors, the Department has achieved gratifying results.

Effective and direct results can best be obtained when the private citizen fully realizes the benefit of public health administration and makes it his personal concern to clean up, or report to the State, township, or municipal authorities any health nuisance with which he comes in contact.

For their own protection as well, proprietors of food and drinking establishments, particularily during the summer season, should exercise care in screening and guarding against dirt, flies, and insects.

They should recognize that only through proper refrigeration can foodstuffs and perishable goods be preserved. A clean, well-kept establishment, where eating and cooking utensils are washed and sterilized after each individual use, will go a long way in promoting the general welfare and result in increasing business dividends.

Frequent removal of garbage and adequate, well-ventilated comfort stations are most essential to health environment, and as provided by law, no food or drink handler should be employed unless he has had a physical examination, and obtained from the Department of Health a certificate of health.

Pennsylvania, with its mountains, lakes, and summer playgrounds, is prepared to be host to a record-breaking throng of 1937 vacation seekers.

During this period the following suggestion might be helpful to all;
" Remember your guest's comfort-- and they will remember you."

- - -

INSTRUCTION CAMP

- - -

Plans have been completed for the instruction camp at Mont Alto that gets under way on Monday, June 14. This camp was revived in 1935 after a lapse of nine long years. At the camp the County Medical Directors, the tuberculosis clinicians, State Nurses and the health officers are brought together and given instruction in every phase of public health work.

The camp continues for four weeks, as in order to keep our field forces functioning at all times only half of the personnel can be sent to Mont Alto at one time. At the end of the initial period the first group return to their districts and others come in for instruction.

VITAL STATISTICS

- - -

With the advent of the present Administration it was found that the records of the Bureau of Vital Statistics were far from adequate. Indices were missing for births and deaths over a number of years, extending back in some cases as far as 1920.

These records are now being brought up to date as rapidly as possible. The coding, typing, alphabetizing, and dexigraphing of the 1935 births and deaths have been completed. Work has also been completed on the 1931 births. The coding and typing has been partially completed for the births in 1920, 1921, 1932 and 1936.

There has been installed a 500 division Alphabetic Variadex System, which will facilitate the filing of an enormous amount of correspondence.

During the past two years $ 132,433.00 has been received in payment for certified copies and searches. As a result $ 24,000 more has been turned into the State Treasury than in any previous two year period.

A modern accounting system has been installed in the Harrisburg, Philadelphia, and Pittsburgh offices.

Over 2,100 requests for statistical information were filled in the past two years. It is estimated that 110,000,000 punch cards have been tabulated. The estimate is based on the many tabulations made on the same cards.

The crowning achievement of the Bureau of Vital Statistics is the installation of a complete photostat system, which in the past year has made it possible to keep on file an actual reproduction of every birth certificate filed with the State.

SYPHILIS MUST GO

By Edgar S. Everhart, M.D. Chief
Div. of Genitionfectious Diseases

Syphilis can be destroyed in this state, but only through the utmost cooperation on the part of the individual, the private physician, and the Department of Health.

At the present time the prevalence of syphilitic infection is so great and its possibilities for destruction are so terrible that no one can presume to compute its massed effect upon the mind and body of the population.

With the aid of additional funds, received under the Social Security Act, the Pennsylvania Department of Health is now taking steps that we hope will lead to the eradication of this neglected disease.

There are some persons who believe that the syphilis problem can be solved in the same manner as are other contagions. Those who have not had the knowledge gained by experience commonly make statements such as," It must be dragged out into the light," but this is a wish that probably will never be borne out in fact.

As long as human nature is as it is, secrecy will be attached to syphilis. No matter how great may be the desire to handle syphilis in the open, that end may never be attained.

Recognizing these conditions the Department of Health is ready to attack syphilis in the only effective way possible under present conditions. There is one procedure, and one alone; supervise and treat the infected " source" so that he cannot possibly infect others.

Until recently the Department had had insufficent funds to attack the problem of syphilis control in a sane and rational way. Now a program that gives promise of success is being put into operation, made possible through the Social Security funds.

Patients who are infected with syphilis do not commonly rush to the private physician, or to the clinic for advice and treatment. They go there by reason of fear, and they avoid treatment once their fear has been allayed.

It is well known that syphilis, above all other diseases, is looked upon with disdain after the outward manifestations have disappeared. Here then is the biggest problem in the battle against syphilis. Find some way to make the patient continue to take needed treatments after his fear has been dispelled.

The private physician can cure syphilis if the person infected is compelled to return to him for treatment. The official health agency is the one force capable of returning the carrier of infection to the private physician. The health agency, of course, cannot give that service to the physician, unless the physician in turn furnishes the information upon which to act.

The real facts in the case are that up to the present time neither the physician nor the State health agency had made it possible for the other to do a real job.

Neither public clinics, nor private physicians working as individuals, can conquer syphilis. These two agents, working together can do so. With proper teamwork that objective can possibly be reached within a decade.

The medical profession has long known how syphilis may be abolished. It has lacked only the means to employ to advantage the resources that are at hand. They know too well the difficulty of keeping syphilitic patients in line for proper treatment. In this respect no other disease can be compared to syphilis.

Practically every physician has begged their patients to persist in treatments, at least to a point where their infection is harmless, only to find that his efforts are in vain. Now the State is taking a hand to help the private physician keep his patients in line for the time that is required to effect a cure.

Under a new regulation the private physician is now required to report all cases of infection of two years' duration or less. On this report no mention is necessary of the patient's name.

But if the patient becomes neglectful in his treatment, then it is the duty of the physician to report the case to the Department of Health, and the follow up process is undertaken.

This follow up will be carried out by a trained force of Medical Investigators, whose duty it will be to seek out the patient and convince him that for his own protection, and for the protection of others, he should continue the course of treatments prescribed by his own private physician.

To care for the indigent who cannot go to a physician, the Department of Health is now opening additional clinics throughout the State. For if syphilis is to be eliminated in Pennsylvania it must be done by a system which has for its object thorough-going treatment of every case of infection, whether it occurs in the ranks of the well-to-do or among the indigent.

As an additional aid to the physicians, free drugs will be furnished to them for the care of patients who are unable to pay the regular fee. This distribution is made possible through use of Social Security funds.

This is no departure from the Department's plan of prodedure. It is only an extension of a service that has long existed. By furnishing free drugs the Department is justified in asking the physician to give thorough-going treatments.

In the chain of syphilis defense the weakest link is the subject who harbors the infection. The eradication of syphilis requires that this link be strengthened and this demands a thorough following through of every known case of infection.

If syphilis is to be eradicated there will be required; first, a wider dissemination of knowledge, one which will reach down to the lowest age groups; an earnest effort on the part of the medical profession to render a great public service; and finally, an aroused public that will demand full service from the govermental and private forces which are entrusted with the guardianship of its health.

* * *

Last month the director of the Nurses Bureau attended a conference in Washington D.C. that was called by Dr. Martha Eliot, and at the same time arranged for a staff educational conference at the Fort Stanwix Hotel in Johnstown.

This conference was devoted to a full discussion of the orthopedic nursing and crippled children's work being carried on in Pennsylvania.

* * *

THE FLOOD RETURNS

By Howard E. Moses
Assistant Chief Engineer

The last week in April found the State again threatened with a major flood, the third in a period of thirteen months. Unusually heavy rains occurred prior to and subsequent to April 26th. The percipitation was particularily heavy in the watershed of the Ohio River and its principal tributaries, and the extreme rise in the streams occurred west of the Allegheny Mountains as was the case in the January-February flood of this year.

Conditions East of the mountains in the Susquehanna and Delaware drainage basins did not become alarming except in the valley of the Juniata River.

Governor Earle designated Colonel Janeway as the coordinator in flood activities, and with him and his administrative force the Department, through the Bureau of Engineering, cooperated to the fullest extent.

While preparations were made by the Bureau to promptly handle all problems incidental to flood conditions, fortunately the waters did not reach major proportions, although some communities were flooded and some waterworks were affected.

East of the mountains the outstanding signs of trouble were at Mifflintown, Juniata county, and at Winburne, Clearfield county. The first mentioned place is located on the Juniata river, not far from Harrisburg and here a temporary bridge was washed away carrying with it a water main through which water is served by the Mifflin Water Company on the west side of the river. Fortunately there was considerable water in storage on that side of the stream, which enabled the company to maintain service until the pipe line was replaced.

At Winburne a pipe line laid temporarily in the bed of Moshannon Creek was broken, causing a discontinuance of water service in the district on the opposite side of the creek from the source of supply. This was a repetition of the occurrence of the March 1936 flood, no permanent installation having been made in the meantime.

Arrangements were made to install a temporary pipe line suspended on cables, but there was a delay of about two days before the line could be put into service, which was accomplished under the direction of one of the Department's engineers who superintended the chlorination of the new source of supply.

Meanwhile, there was no public water supply in that portion of the district cut off from the main system by the pipe line failure, and the citizens were obliged to use water from a spring in the neighborhood.

Although this spring seemingly was well protected, they were advised to boil the water for use in domestic purposes until the public water supply could be resumed.

In the western part of the State the streams principally affected were the Ohio River itself, its two principal tributaries the Monongahela and the Allegheny rivers, as well ad the Conemaugh, the Kiskiminitas and the Youghiogheny rivers. In the Pittsburgh area itself there were very few public waterworks adversely affected to the extent of a shut-down, and where this happened the water service was maintained by resort to nearby public supplies, or by serving the public from water in storage.

All waterworks either actually affected or likely to be, were contacted by the Department's staff of engineers and plans were made to handle emergencies which it was anticipated might arise.

As in the January-February flood, some towns were inundated to a varying degree, much less of course than in the March, 1936 flood. The flooding occurred in the low lying sections along the rivers and included Groveton, Glenfield, and Mc Kees Rocks along the Ohio; Pittsburgh, Sharpsburg, Millvale, Etna, Verona, New Kensington and Tarentum along the Allegheny; wuth Turtle Creek, and East Pittsburgh likewise affected by the rising waters of Turtle Creek.

The lower sections of Johnstown were again invaded by the flood waters of the Conemaugh River, and Stony Creek. The water penetrated into the business section of the city.

The entire engineering personnel was prepared for emergencies , but few developed, and the flooded towns and cities relied upon their own resources and did not in general request assistance from the Department of Health during the flood.

* * *

Mr. W.L. Stevenson, Chief Engineer of the Department of Health, attended a conference in the city of Philadelphia on the proposed establishment of an upland source of water supply for Philadelphia, and outlined the State laws governing water supplies, etc.

He participated with other members in a conference of the sub-committee on engineering of the Inter-State Commission on the Delaware River Basin. The Committee, which met at Trenton, N.J. is charged with the duty of studying existing data and proposed standards of cleanliness for the Delaware River.

* * *

SHELLFISH SANITATION

By William A. Gorman
Sanitary Engineer

The month of April concluded the active shellfish season, and a brief resume of the work undertaken in that connection may be of interest.

Rules and regulations providing for control of sanitation in the shellfish industry was made in April, 1936 by the Advisory Health Board. These rules are based on the regulations of the United States Public Health Service that governs this industry, and generally provide that no oysters, clams, scallops, or other shellfish are to be sold or offered for sale in Pennsylvania unless they are from certified origins.

By this is meant that the establishment producing or handling such shellfish must be certified by the State in which such establishment is located, the certification having been approved by the United States Public Health Service for shipments in inter-state commerce.

Among other things, it is required that all shipments shall bear evidence of such certification on the tag or label accompanying them. The regulation further provide for the sanitation of the establishments within the state handling shellfish, or reshipment either as shellfish or for shucking where the shellfish are removed from the shell and repacked in other containers.

Subsequent to the adoption of the rules and regulations, they were used occasionally by local health authorities and also by the Department, but no systematic work was ever undertaken in connection with this activity until the past year. Then, upon recommedation of the Bureau of Engineering, the Secretary of Health provided a force of engineers for this work, which has been pursued actively since last summer.

In preparation for the work the engineers, in company with repersentatives from the United States Public Health Service, inspected shellfish shucking establishments in New Jersey last October to obtain first hand knowledge of the conditions which prevailed in such places.

This inspection tour was desirable, inasmuch as Pennsylvania does not have any shellfish areas within the State, all such products coming into the State by way of shipments chiefly from the nearby states of New Jersey, Delaware, Maryland, and Virginia.

The problem within the Commonwealth is two-fold, namely, inspection, certification and supervision of 12 shellfish establishments in Philadelphia engaged in inter-state commerce, and the wholesaling and retailing of shellfish within the borders of the State itself.

The Philadelphia establishments, because of the interstate nature of their business, are required to be certified by the Department, said certification to be approved by the United States Public Health Service. One of the first activities of the force engaged in this work was to make a careful inspection of these places, on which they were accompanied by representatives of the United States Public Health Service, and of the Department of Health of the City of Philadelphia.

Although these establishments have been all certified in past years, approval was not entirely given to them, and this year a determined effort was made to bring about such improvements in each establishment as might be necessary to place it in a condition meriting certification.

As a result of this work, which entails quite a number of inspections, eight shellfish establishments located in Philadelphia were certified by the Department of Health, approved by the United States Public Health Service, and their names added to the list of approved establishments issued by the Federal agency.

The other establishments in Philadelphia were disapproved, one because of unsatisfactory conditions in the plant, and the others because of the use of some second-hand cans.

In two other instances only were establishments found to be engaged in interstate commerce; one was at Scranton and the other at Easton. Consideration is being given to the certification of these two places.

A state-wide survey was undertaken in the larger communities to ascertain their practice in enforcing the Department's rules and regulations for sanitary control in the shellfish industry.

To this end 161 municipalities were visited and the local health officers interviewed, first of all to inquire what was being done, if anything, and second to acquaint them more fully with the procedure and to enlist their cooperation in this work of the Department of Health.

Instances were discovered of establishments handling uncertified shellfish, and in some cases the local Health officers confiscated such stock, but mostly they just notified the owner to cease buying stock coming from any unapproved sources.

It is believed that the work which has been done this year will be reflected in more rigid supervision of the sanitary measures in connection with this food product. Generally, local health officers were interested in the subject, and have cooperated very well with representatives of the Department.

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A MONTHLY BULLETIN
of the
Department of Health

July
1937

Edith MacBride-Dexter, M.D.
Secretary of Health.

THE SECRETARY OF HEALTH

Dr. Edith MacBride-Dexter, snapped during her visit to the Instruction Camp at Mont Alto on June 14.

Pennsylvania's Health

Official Bulletin of the Pennsylvania State Department of Health
EDITH MacBRIDE-DEXTER, M. D., Secretary of Health
Tom Shriver, Editor

Vol. 14 Harrisburg, Pa., July, 1937 No. 2

"Acceptance for mailing at special rate of postage provided for in Section 1108, Act of October 8, 1917, authorized April 6, 1928."

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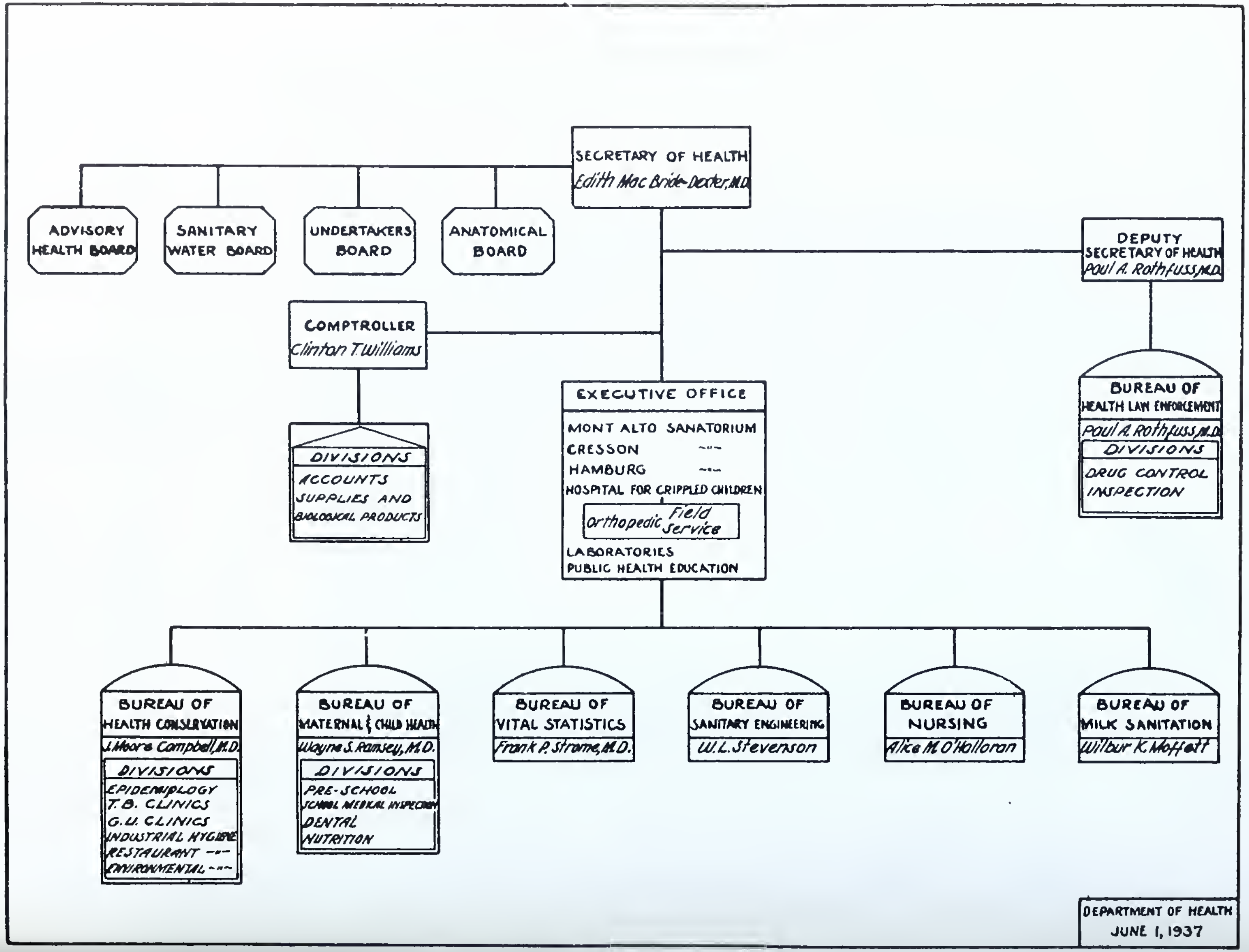
Published monthly by The Pennsylvania Department of Health, Harrisburg, Pa. This Journal is free to the people of Pennsylvania. A request to the Editor, Department of Health, Harrisburg, Pennsylvania, will bring a copy of this magazine to your home without charge.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DEPARTMENT OF HEALTH
JUNE 1, 1937

OUR MAJOR PROBLEM

By Edith MacBride-Dexter, M.D.
Secretary of Health

Thirty-two years ago, when the Department of Health was created, it faced as one of its major problems the fight against tuberculosis, the leading cause of death in Pennsylvania at that time.

Scientific knowledge concerning the disease in 1905 was limited. It was known that germs thrived in people living in the slum areas of crowded cities and that life in a more healthful atmosphere sometimes produced remarkable results; and that the disease was highly infectious.

Acting on the basis of these known facts, the first Commissioner of Health of the Commonwealth, Dr. Samuel G. Dixon, obtained an appropriation from the Legislature for the erection of a sanatorium and a few cottages at Mont Alto, which provided a safe haven for a handful of victims of the disease.

Since then, tuberculosis has been reduced to a point where it now ranks seventh among the causes of death, instead of first. This definitely is a victory, one which will not go unrecognized in the history of public health work in Pennsylvania. However, let it not be assumed that the battle is won.

Tuberculosis today ranks seventh ----- but it still claimed the lives of 4705 in 1936 and remains the greatest single cause of death in the age groups between fifteen and forty-five.

Much has been learned about tuberculosis since 1905 when the Department of Health was created. Many of the old theories have been discarded as experience has proven them false. The erroneous belief that the tuberculous person required a more or less strenuous life in the out-of-doors has fallen by the wayside, along with the theory that only the rarified atmosphere found in high altitudes, or the hot, dry climate of the Far West could cure the disease.

Today, we know that tuberculosis can be cured as readily in one locality where the air is pure as in another, provided proper treatment is given. We know also that the victim of tuberculosis requires above all things, rest, good food, clean surroundings, and proper routine.

Medical research has also given us other weapons with which to fight the disease, in addition to these more or less passive methods of treatment. It is now more than forty years since Carle Forlanini, in an experiment in Italy, introduced a small amount of air in the chest of an advanced case of tuberculosis, putting a cushion of air between the lung and chest wall, compressing the lung and putting it at rest, and giving the cavities caused by tuberculosis a chance to heal by the formation of scar tissue.

Not long after the result of Forlanini's treatment became known, a North German surgeon, Dr. Ludolph Brauer, found that stubborn cases, whose lungs clung to the chest wall because of adhesions, could be helped by removing sections of the ribs, which allowed the lung to collapse and gave it a chance to heal.

For patients too weak to stand the shock of an operation, German surgeons developed the technique now in use, for cutting the phrenic nerve which controls the diaphragm, allowing the diaphragm to move up into the chest cavity, compressing the lung and giving it a chance to heal.

The theory on which these men worked was very simple. Lung tissue, they reasoned, could not heal so long as it was in motion-- no more than a cut on the knuckle of a finger could heal while the joint was moving. By putting the lung at rest, the cavities within the lung could heal themselves.

Fortunately, Nature has given us a superabundance of lung tissue-- one fifth of a lung, functioning properly, will sustain life. If this were not true, an operation of this type would be impossible.

The techniques developed by these foreign surgeons were slow in finding acceptance in America. The Pneumo-thorax treatment was the first to be adopted. It is now in extensive use. A few surgeons began performing the Thoracoplasty operation about fifteen years ago but it was not until recently that this treatment was accorded universal acceptance.

Pneumo-thorax is inexpensive. It has been used by the Department of Health in its three tuberculosis Sanatoria for several years. But even this treatment was not used as much as it might have been until recently. Thoracoplasty, which could be performed only by well trained surgeons in hospitals equipped for the work, was for these reasons used even less frequently.

None of these methods of treatment are certain, but together they give to each victim of tuberculosis three more chances of a cure than he had a quarter of a century ago.

We, in Pennsylvania, recognize that tuberculosis can be conquered. We are determined to leave nothing undone that will contribute to the defeat of this disease which continues each year to kill too many of our best citizens, especially in the age group from 15 to 25, a period of education for the youth, and of employment, marriage and the establishment of homes -- a time when the youth is of great civic usefulness.

We look toward the day when tuberculosis will be a minor disease, noteworthy only because of its past history.

It is with this goal before us that we planned for the citizens of the Commonwealth of Pennsylvania a new tuberculosis campaign built on the foundations of medical science.

The first step in this campaign was taken on April 27, when ground was broken for the erection of a new and completely modern surgical unit at Hamburg. On May 19, in a modernly equipped temporary operating room at Hamburg, Dr. Moses Behrend, of Philadelphia, performed the first chest surgical operation under our new program.

Assisted by a staff of nurses and specially trained assistants, he will perform operations weekly on patients from the Mont Alto & Cresson Sanatoriums, as well as those hospitalized at Hamburg.

This temporary operating room will be used pending the completion of the new surgical unit. The new unit will consist of two operating rooms, 38 beds for patients during the period of operation and then convalescence, an X-Ray department, which will be up to date in every respect, and appropriate administrative offices and staff rooms.

This new unit makes it possible for the State Department of Health to give tuberculosis patients all the advantages now known to modern medicine and surgery for treating this disease.

Pennsylvania now ranks second to no other

State in its facilities for treating tuberculosis.

The new program for chest surgery is but a small part of our campaign. New State clinics are being added and, when necessary, more hours will be added to some of the existing clinics.

Modern knowledge has made many things about the disease clear. We know now that tuberculosis can be contracted only by contact with a person who has it. What is more natural then, than to devise a plan whereby the greatest possible number of those suffering from the disease in the active infectious stages can be taken into our institutions where they are isolated from healthy people and given treatment to cure them or render them non-infectious.

It is this plan which is the spearhead of the Department of Health's campaign.

We know that there are thousands of cases of tuberculosis in Pennsylvania which never come to our attention. We know from fairly accurate estimates that there are approximately 40,000 active cases of tuberculosis in this Commonwealth, that there are approximately 130,000 healthy persons living in contact with victims of the disease, and that about 90,000 of these are children who are in grave danger.

Governor Earle is deeply interested in the care of Pennsylvania's tuberculosis patients and has made every effort to secure money to provide additional institutional facilities to care for sufferers from this disease, as well as for all citizens of the State who are suffering from disease or misfortune and are not financially able to provide the necessary care and treatment for themselves.

Our three Sanatoria at present have a capacity of approximately 2400 beds. We usually have a waiting list of from 700 to 1000 patients. In order to take care of these, we plan to increase our capacity by 1400 beds. This will more than absorb our present waiting list and provide facilities for the treatment of patients discovered by the new case finding program in which the Department of Health is engaged.

Our building program, which is part of Gov. Earle's campaign to modernize and expand our State institutions, will include a new sanatorium of 550 beds to be built in Western Pennsylvania;

Four hospital units at Hamburg to accommodate 200 patients, exclusive of the new surgical unit;

A new Children's Hospital at Mont Alto with a capacity of 300 beds to replace and enlarge the present outmoded structure; a modern hospital building at Mont Alto for 500 patients, with a wing containing 75 beds to accommodate children suffering from adult type of tuberculosis;

A new nurses' home at Hamburg, and a home for nurses and separate buildings for patient-employees at the new Western Pennsylvania Sanatorium. Existing buildings at Mont Alto, many of which are fire hazards, will be fire-proofed and a number of new camp units including a special kitchen and dining room for a number of cases in the camps will be built.

In order to assure that Pennsylvania's new tuberculosis program will give the people of our state the utmost value, we have made careful studies of all modern tuberculosis institutions so that advantage may be taken of new developments in hospital design. In addition, careful attention has been given to selection of a site for the new Sanatorium in the Western part of the State.

More than 75 locations were visited by trained tuberculosis specialists and sanitary engineers of the

Department of Health. Each site was considered from the standpoint of atmospheric conditions--- there must be a plentiful supply of sun, and air free from dust, smoke, and excessive fog-- accessibility to transportation facilities such as railroad and bus lines, elevation, an adequate water supply of about 200,000 gallons daily, good general surroundings, level plateau for buildings, sewage disposal facilities, and proximity to a center of population.

All but 15 sites were discarded as inacceptable. As Secretary of Health I have made personal inspections of these 15 sites and have submitted a detailed report covering the entire 75 sites to the Governor.

An important unit in our fight against tuberculosis is our case finding service, and with Social Security funds made available by the U.S. Public Health Service, we have purchased and put into operation our motorized X-Ray field unit, known as the Juvenile Tuberculosis Case Finding Unit.

This Unit, which is the last word in the way of X-Ray equipment, was designed especially for the Department of Health and was approved by the Morse School of Engineering of the University of Pennsylvania. It is so constructed that it can be dismounted, then re-assembled in the school or other building where the X-Ray is to be used, and then re-mounted on the truck for transportation to the next town or city.

The Unit is accompanied by a trained roentgenologist and a technician, and is sent into the counties to X-Ray first year high school students.

As the first step in this examination the boy or girl is given the Mantoux test, which determines if he has any hidden symptoms of tuberculosis. All those showing a positive reaction to the Mantoux test are placed under the X-Ray and films are made to determine the extent of the infection.

An X-Ray laboratory has been opened in Harrisburg, in charge of Dr. Sidney Feldstein, a noted roentgenologist, and here the films will be sent at the close of each day and examined for traces of hidden tuberculosis.

No child is examined without the consent of the parents, and parental consent slips are sent out before all examinations. In the first six counties this unit has visited it is interesting to note that 50 per-cent of the parents have been willing to have their children undergo the test. Out of 9,700 examined there were 1,340 positive reactors found, or about 14 per-cent that showed symptoms of having incipiant tuberculosis.

We asked the Superintendent of Public Instruction for permission to X-Ray the first year and senior students at the State Teachers Colleges and he readily gave his consent. This will help to prevent teachers who have incipient tuberculosis from coming in contact with any small children in the schools. An order has been placed for another X-Ray machine for this work, and we expect very shortly to place a third order.

In selecting personnel to carry out our new program, every effort has been made to obtain the services of recognized specialists in this field. Our Surgeon, Dr. Moses H. Behrend, is on the staff of the Philadelphia General Hospital and is recognized as one of the finest chest surgeons in the city.

The physician who is in charge of our State Tuberculosis clinics has had extensive education and practical training in tuberculosis work. The physician in charge of our X-Ray laboratory in Harrisburg is a prominent roentgenologist of Philadelphia who has been associated with Philadelphia's leading roentgenologists, and was a Director at the Jewish Hospital for 15 years. He will have charge of the X-Ray work at our four State Tuberculosis Institutions and oversee the development of the films sent in from the mobile X-Ray laboratories to Harrisburg and interpret them to determine if the child has an active tuberculous lesion.

Our campaign is aimed chiefly against tuberculosis during childhood and early adolescence. If these individuals were cared for in the incipient stages we feel that patients would not develop tuberculosis after they reach the age of 40-- that cases of tuberculosis after that age are in those who had the disease undiagnosed and hence untreated in childhood, and break down in later years because of the stress and strain of life.

The Department of Health is pledged to do its utmost in the fight to stamp out tuberculosis, which in spite of the intensive campaign which has been waged against it, continues to take a heavy toll of life not only in Pennsylvania, but in the Nation.

The foregoing article is taken intact from an address delivered by Dr. Edith MacBride-Dexter, at the annual Instruction Camp for State medical directors, health officers, and nurses, held at Mont Alto from June 14 to 25.

A special article on the Instruction Camp, written by Dr. J. Moore Campbell, will be found on Page

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While attending the Instruction Camp at Mont Alto, Dr. Campbell took time out from his manifold duties to go to Shippensburg on Tuesday evening, June 15, and gave an interesting talk on the control of all communicable diseases.

DEPARTMENT NOTES

The Department of Health was represented at the annual meeting of the American Medical Association in Atlantic City N.J. on June 7 to 11, by the Secretary of Health, Dr. Edith MacBride-Dexter, and several other members of the staff. Those in attendance included Dr. Louis Tuft, Director of Laboratories, who read one paper and lead the discussion on another, Dr. John Donaldson, Dr. Edgar S. Everhart, Dr. A.F.Doyle, Dr. William Bolton and Dr. John H. Remig.

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Dr. Joseph A. Mobilio of Philadelphia was made Chief of Staff at Cresson Sanatorium. He has had some years of experience in tuberculosis sanatorium work, is well known throughout the State, and comes to his new post well qualified to carry out the duties assigned to him by the Secretary of Health.

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Dr. J. Moore Campbell, Director of the Bureau of Health Conservation attended a conference at Harvard University on halowax. This conference was of particular concern to the Department of Health in view of the fact that the Department was interested in the trouble at the General Electric plant in York among halowax workers a little over a year ago.

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Dr. Wayne S. Ramsey, Director of the Bureau of Maternal and Child Health spoke before a Conference of Social Workers in Altoona on June 18, stressing the Department's program on Maternal and Child Health work.

LET'S GUARD OUR TEETH

By Milton J. Waas, D.D.S.
Chief, Div. of Dental Hygiene

Health preservation, or sickness prevention, is rapidly assuming the role of major activity in all medical science today. The cost of prevention is so small in comparison with the cost of cure that this change in the thought patterns of the medical profession is very sound from our economic viewpoint.

The Dental profession has also been kept well abreast of this changing concept and l wish to tell you of some things concerning this departure from the old system.

Each of you know that if a tooth is removed, it cannot be a bloodless operation. This means that the tooth root is imbedded in tissues that are directly connected with the circulation of our blood. This means also, that any infected tooth is in its way directly capable of feeding infection into the system. In other words, at one end is the tooth root; while at the other end is the heart.

In the great majority of cases, the germs that cause the degenerative diseases of middle age, which are largely kidney and heart infections, are the same as those found in diseased and infected teeth. By name, these germs are the streptococcus viridans, or better known, haemolyticus.

In nearly every individual, the first entrance of the germs into the human system occurs through the teeth. We must also recognize the fact that this always occurs at a very early age.

We, therefore, begin to think back earlier into the life cycle of the child. The first, or temporary teeth, are all formed in the jaws of a child before he or she is born. They come through the gums and appear in the mouth later; but they are formed before birth.

In order to prevent dental infections from occurring, we must use educational methods to be effective. We must begin by teaching mothers the importance of good teeth. We must first teach them diet. We must teach the very young child the importance of, and care of, the teeth.

To this end we have developed the Dental Hygienist. She is a young lady with a year of training in a recognized Dental College, and a year's interneship in a hospital. After examination by the State's Dental Board, she is certified by the Department of Public Instruction as a teacher of Dental Hygiene.

She is then employed either in a private dental office, under the supervision of a dentist, or in the Public School system under the supervision of the head of the Dental Division of the State Department of Health. There are at present about 120 of these teachers employed in the various schools of the State.

In addition to the foregoing, there have been eight Dental Hygienists employed under the Maternal and Child Health program of the Social Security Act of the Federal Government. This number will shortly be increased to 15.

These Dental Hygienists have been working in rural centers of less than 5,000 population. One half of their time is devoted to school children and the other half to children of pre-school age, and to their mothers. They work in Child Health centers, or other centers that may be established by the Parent-Teacher Associations or by social welfare agencies. In these centers the work of the Dental Hygienist is almost entirely educational.

In their school work, these Dental Hygienists enter a town with the permission of the Superintendent of Schools, and with the cooperation of the County Medical Director, the local dentists, and the State Nurses. They are also copperating very closely with the Child Health Emergency committee of the Medical Society of the State of Pennsylvania, and with representatives of the National Parent-Teacher Association.

These Dental Hygienists carefully examine each child and thus determine the dentally healthy and the dentally unhealthy. Each child found with any dental defects is given a State Corrective Advice Card to be taken home, advising the parent or guardian to take the child to visit the family dentist. The reverse side of this card asks the dentist to certify that all needed corrections have been made. This results in such dental troubles being corrected before infections occur.

Always there are a certain number who cannot afford such dental work. These Dental Hygienists then go to all the local Social Agencies asking for financial aid to pay the local dentist at least for the material cost of such corrections. They have been very successful in receiving aid in their campaign to have the teeth of these unfortunate future citizens put in a healthy condition.

Where time permits, and the child's parents cannot afford dental care, they clean his teeth. This work is done particularly for the children in the first three grades; in other words, in ages ranging from six to nine years. They also give valuable health talks to each class as they proceed with their work.

During the 11 months this program has been operating, our Dental Hygienists have examined 52,800 children, cleaned 5,000 sets of teeth, and given 3,520 periods of oral instruction. When they leave any town the citizens and children of these towns are thoroughly tooth-healthy conscious.

Thus our Department of Health considers it is rendering a needed service when it warns its young and old alike to Guard Your Teeth. Here is one of the finest types of Health work. It is Health Education. It is Health Preservation. And in the final analysis, it is Sickness Prevention.

On June 22 an address was delivered to the Blair county Medical Society assembled at the Jaffa Mosque in Altoona, by Dr. Edgar S. Everhart, chief of the Department's division of genitoinfectious diseases. He was accompanied on the trip by Dr. John Heller Jr. of the United States Public Health Service.

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A group of the Department's staff of Engineers attended the annual meetings of the Pennsylvania Sewage Works Association and the Pennsylvania Water Works Operators' Association at State College. Fully 350 persons, most of them city officials and directors of water supply and sanitation systems were on hand.

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Dr. Sidney L. Feldstein has been placed in full charge of the Harrisburg X-Ray Laboratory, and will be ready to handle all X-Ray plates sent from the field by the motorized Juvenile Case Finding Unit operated by the Department in the fight against tuberculosis.

THE UNIVERSAL ENEMY

By Dr. William W. Bolton

Syphilis has long been a thorn in the side of medicine. Public indifference and prudery have been a partial responsibility for this. Another factor has been lack of any satisfactory treatment for syphilis, that is, a treatment that assures a cure.

Public indifference has been changed to real genuine interest as a result of nation-wide publicity about the disease and its effects.

And now, after years of research, medical men have found an adequate method of treatment.

Fortified with these important weapons, the State of Pennsylvania has undertaken a carefully organized campaign against syphilis. It will be conducted along public health lines, with the united aid of the public clinics and private physicians.

The basis of public health work is always to get at the source of an infection, to cut it off before it can spread. That can be done readily in the case of syphilis.

Syphilis is an infection, caused by a specific germ. Finding this organism in the sores, or in the blood of an infected person permits of positive diagnosis. The first step of a public health drive is taken; the source is determined.

In many diseases a quarantine is set up, the carrier being isolated. Such procedure is not necessary in syphilis IF THE INFECTED PERSON SEEKS PROPER TREATMENT. For it has been demonstrated beyond all doubts that if a person suffering from syphilis does obtain a proper treatment, the organisms that cause the disease disappear quickly from the sores.

This does not mean that a cure has been effected. Much longer treatment is required. The United States Public Health Service standards stipulate steady treatments of from eighteen months to two years before there is a possibility that a cure can be considered. But the patient no longer remains a menace to the public, to his or her family, or friends.

The germ of syphilis was discovered in 1905 by Fritz Schaudinn. He gave it the name Treponema Pallidum, or Spirocheta Pallida. It is a pale, moving organism, in shape something like a corkscrew.

Further studies of this germ showed that it will thrive in locations where there is moisture and warmth, but dies quickly when dried. There is the key to the manner in which syphilis is transferred from one person to another.

The germ must be deposited upon the skin or the mucous membrane. This contact passage of the infection explains why it is so necessary for carriers of this germ to receive treatment, for if a carrier is treated, the organisms no longer are present in sores on the body.

Syphilis is transmitted only in this way, via contact. It has no animals as intermediate hosts, as in malaria; it is not an air-borne infection, as in the case of influenza; nor is it a food-borne disease, as in typhoid fever.

Unfortunately, when the syphilis germ takes its root, the person infected does not know it for sometime.

While the organism multiplies rapidly and soon is distributed throughout the body, the first signs of its invasion do not appear for about three weeks.

That sign is a painless sore, usually circular, about the size of a penny, and usually very firm. These may appear on any part of the body that has been in contact with the syphilis germ. From that sore, syphilis can be diagnosed, but not easily. Skilled medical opinion must be obtained.

There are blood tests for syphilis, but these unfortunately, usually are still negative this early in the infection. A helpful practice, rapidly gaining popularity among physicians, is to examine secretion from the sores. If the infection is syphilitic, the germs, or spirochetes, will be found in the serum.

The sore, or primary stage, of syphilis may last a week or two. After it heals, there is another period of quiescence, lasting usually six weeks to three months. Then the secondary stage develops. It is much more acute, and involves the body more extensively.

The sufferer may have fever, with vague aches in bones and muscles. Sore throat is common, and usually a rash appears upon the body.

So far as public health is concerned, these two stages are important. So far as permanent cure of the patient is concerned, they are equally important. During the primary and secondary stages, there are lesions upon the skin and mucous membrane which are swarming with the germs of syphilis. With treatment, these germs disappear from the sores.

The time for greatest hope for some cure is when the patient starts treatment as quickly as possible, before the germs become entrenched deep within the body. Fortunate are those who have begun the prescribed course of treatment while the primary sores are still present.

Tertiary syphilis is not usually a public health problem. Its symptoms may be delayed for almost 30 years. It has become a disease of the vital organs. Its toll is economic since its victims are very often incapacitated. They become burdens upon the family or the community.

One form of syphilis which does not follow the course just outlined, at least so far as the actual observation of it is concerned, is congenital syphilis. This is the syphilitic infection of the unborn child. All too often such children are born with the tertiary manifestations of the disease, and are helpless wards throughout life.

Too much emphasis cannot be placed upon the importance of expectant mothers with syphilis getting proper treatment. Studies have shown that a syphilitic expectant mother has only one chance in six of giving birth to a healthy, non-infected baby if she does not receive treatment. But if treatment is started before the fifth month if possible, she has a 90% chance for bringing into the world a child which will never show the slightest trace of syphilis.

Treatment is not a complicated matter. But the complete understanding of the proper drugs to be given and the proper time at which to give them, is extremely complicated. This vital problem should be always left in the hands of a competent physician.

Physicians have accepted the treatments of the U.S. Public Health Service as standard. These consist of 20 to 30 treatments given by way of the veins, and 30 to 60 in the hips with no rest period. Studies have shown that only with this minimum can any hope be held for a cure. Treatment is a question to be left entirely in the care of the attending physician.

Every possible avenue of approach against the disease has been worked out by the State to insure success in its campaign.

Scattered throughout the State are clinics for the treatment of syphilis. These clinics, started in 1918, have been added to steadily. More are being opened when opportunity presents.

Private physicians have also been enrolled for the fight. Drugs are available to them for treatment of any patients who are unable to pay the standard fee.

To strengthen the public health angle-- that is, detection of syphilis at its source-- the State now has a corps of nurses, known as Medical Investigators. These nurses trace carriers of the disease, urge them to take proper treatment. Also, they follow up patients who fail to take enough treatments, showing them how dangerous they are to the community, and persuade them to resume medication.

The Secretary of Health, Dr. Edith MacBride-Dexter, chairman of the Advisory Health Board, called a meeting of this board last January asking them to approve that all cases of syphilis of two years duration or less, must be reported to Harrisburg. Identity of the patient is not revealed, since the report is by number only. But if the patient fails to obtain treatment, then the name is reported.

During the first two years-- during the primary and secondary stages of the infection-- the patient is a menace to the community. That is the focal point of the State attack. The source of new infection must be shut off. That can be done only if proper treatment is to be carried out.

SIGNING   ANTI-POLLUTION BILL

Governor Earle affixed his signature to the Larue Bill while several interested onlookers watched the ceremonies. From left to right are Judge Grover C. Ladner, Represehtative Larue, Dr. Edith MacBride-Dexter, Secretary of Health P.G. Platt of Wallingford Pa., Dr. James F. Bogardus, Secretary of Forests and Waters, and Charles French, Commissioner of Fishing.

THE ANTI-POLLUTION BILL

On June 22 a bill was signed by Governor Earle that adds " teeth" to the water purity act of 1905. It has become known as the Anti-Pollution Bill, and has as its purpose the purification of Pennsylvania's streams to provide safer sources for drinking water and clearer streams for fishing.

The Governor affixed his signature to the bill in the presence of Judge Grover C. Ladner, leader in the fight for pure stream legislation for the past 15 years, and cabinet officers interested in the bill.

These cabinet officers included the Secretary of Health, Dr. Edith MacBride-Dexter; the Secretary of Forest & Waters, Dr. James F. Bogardus; the Commissioner of Fishing, Charles French, and Philip Platt of Media a member of the Sanitary Water Board.

The new law, sponsored in the Legislature by Representative Mahlon F. Larue of Berks County, serves to stiffen the penalties for discharge of contaminating substances into the State's streams and increases the power of both State and local authorities to cope with water pollution.

Judge Ladner, National director of the Izaak Walton League and president of the State Federation of Sportsmen's Clubs, directed the drafting of the bill which passed with only one important amendment.

The major amendment to the original draft of the bill exempts acid and silt drainings from mines until " such time as in the opinion of the Sanitary Water Board practical means of treatment become known."

Industrial plants discharging waste can now be ordered to stop by the Board, if the discharge is found to be " injurious to health, aquatic life, industrial or recreational use of the stream."

No new plants may be erected to discharge such waste except on condition that adequate treatment works are provided.

Petty pollution may be punished by fines for the first offense and jail sentences if repeated.

Commenting at the signing of the bill, Judge Ladner said:

" Governor Earle's Administration has to its credit many important liberal measures but l venture to predict that history will place among his most important achievements the redemption of Pennsylvania's fine streams which this bill makes possible."

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On June 3, at the Hotel Pennsylvania in New York City, a meeting was held between the health regulatory officials and directors of the Oyster Growers & Dealers Association of North America, Inc., for a discussion of the advisability of changing or modifying the existing sanitary regulations.

William A. Gorman represented the Department of Health, while approximately 20 representatives of the Oyster Growers Association, and representatives of the following states were on hand: Virginia, Connecticutt, Rhode Island, New Jersey, New York, Massachusetts, and the United States Public Health Service.

THE UNDERTAKER'S DUTY

By Edith MacBride-Dexter, M.D.
Secretary of Health

It is a pleasure to greet you this morning and I share in your regret that his Excellency, Gov. George H. Earle, is unable to be with us.

As an ex-officio member of your State Board I appreciate the value of an assembly such as this and assure you that the full cooperation of the Department of Health is accorded to your organization in its efforts to render finer public service.

The State Board of Undertakers was transferred to the Department of Health in October of 1935. At that time we found the records of the Board to be in a somewhat chaotic state. In view of the value of these records, their revision into an orderly, efficient, system of files was imperative.

A complete reorganization was made and as a result, notices for registration were forwarded promptly for the first time in several years. This serves to mutual advantage. The profession as well as their governing body has available accurate and current data on its membership.

It will interest you, I believe, to know that in the past thirty-one years over 3,900,000 death certificates have been recorded in the Bureau of Vital Statistics. We consider that this total represents as near as possible a 100 per cent complete registration.

May 1 recommend that this enviable example of vital bookkeeping be followed closely in the keeping of your ledgers.

Reliable records, however, are of little significance unless the integrity of the people using them is maintained. As in the case of any leadership, the success of the State Board of Undertakers depends upon the faith and honesty of its members. Examinations in Pennsylvania are conducted without favoritism. No outside factors have had, or will have, any influence on the conduct of the examining board.

As Secretary of Health, 1 am particularly concerned in safeguarding the health rights of the public, and at the same time, in maintaining high standards of the professions that perform that duty. 1 believe that the most adequate common denominator for the two is an efficient inspection service.

If the proposed additional appropriation for the Health Department is approved, two inspectors will be assigned to the Board. In that case, every funeral director's establishment in the entire State would be inspected. This inspection it is hoped, in time would eliminate unethical practices by the citing of chronic offenders to appear before the Board. We feel that a procedure of this nature would receive the endorsement of the State Association.

1 am convinced that our Board should inspect and classify the embalming schools attended by men who subsequently will appear before it for examinations. No school should be discredited without a hearing, and persons outside the State should have no authority to dictate what schools Pennsylvania may or may not accept. Under no circumstances should any group of men other than the regularly approved Board be granted the power to submit or grade examination papers.

The Department of Health has cooperated with the undertakers in this State in every way. You have enjoyed all the privileges accorded to you by law. With few exceptions, the cooperation has been returned and the privileges not abused.

There are, as you know, laws governing the functions of the Health Department. Registration districts cannot be changed and we must insist that a body shall not be removed from one registration district to another unless a burial permit is secured. During the past three months several instances have occurred where bodies were interred without permit.

This is a very serious violation and one which will be necessary to prosecute for all future violation. Incidentally, the offenders in the majority of cases are not members of the State Association. Unfortunately the laxity of a few individuals often mars the splendid record of a large group. Every violation of the law reflects discreditably on your profession.

At the present time there are approximately 3,450 registered undertakers in the Commonwealth of Pennsylvania. With each year this number increases while the general trend of deaths is decreasing.

Your county unit in its local contacts, your State unit, and your national body exercise two fundamental functions; first -- the promulgation of information pertaining to ethical practices, and second --- the prevention of fradulent and inferior service.

These are not alone functions --- they are the responsibilities you have to the public which you are serving.

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This talk was delivered by Dr. MacBride-Dexter before the meeting of the Funeral Directors Association of the State of Pennsylvania, assembled at Harrisburg.

HIGHWAY WATER SUPPLY

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On June 3 the Bureau of Engineering started on examination of highway water supplies for the season. This work consists of the examination of the supplies found on private properties, but available to the many tourists that use the more traveled State highways.

Each supply is examined and if the conditions surrounding the source is satisfactory a sample of the water is collected and analyzed in one of the traveling laboratories. If the physical conditions are found satisfactory and the analysis also proves satisfactory then a Safe Water metal placard is issued to the owner or occupant of the premises.

If the conditions surrounding the sources are not satisfactory, then the occupant is advised on the corrective measures that should be taken, and then if the corrections have been cared for, a re-examination is given. If this re-examination proves satisfactory the Safe Water placard is issued.

In case the supplies are not satisfactory in the analysis, or because of physical conditions that surround the source, then the occupant is notified and requested to prevent the general public from the using of the water.

The work started this season in three of the districts set aside by the Engineering Department. The No. 1 district is in the region of the Poconos. The No. 2 district is in the Southwestern part of the State, while the No. 3 district is found in the immediate vicinity of Philadelphia.

In 1936 the Engineering Department was able to issue 1709 Safe Water placards, while the laboratories covered approximately 2600 miles.

BUREAU OF VITAL STATISTICS

By Frank P. Strome, M.D.

The Commonwealth of Pennsylvania was one of the leaders in this country in recognizing the value of vital statistics. As early as 1851 a law was enacted providing for the registration of marriages, births and deaths. While this Act included many of the essential features of a complete registration law, it failed in its primary purpose due to the lack of adequate provision for its enforcement.

Thirty-four years later on June 3, 1885, the Legislature created a State Board of Health and Vital Statistics. Under the provisions of this Act, a Central Bureau was organized in the Department of Internal Affairs. The statistics were to be derived from county officials in the same manner as provided for in 1851. The weakness of these two Acts was identical.

In 1893 the Legislature made an additional effort to collect certain vital records throughout the Commonwealth. Although this Act referred to registration, it merely approved an enumeration of such facts relating to births and deaths as the assessors could obtain when making their semi-annual assessment. This law, too, failed in its original purpose.

On May 1, 1905, the present Registration Act was passed effective January 1, 1906. This law provided for the filing of birth certificates by physicians or other persons in attendance and charged undertakers with the duty of securing accurate and complete certificates of death. According to this law, original birth and death certificates are filed with local registrars throughout Pennsylvania, who forward them to the State Registrar at Harrisburg for permanent recording. The effectiveness of this law is evidenced by the fact that a Model Law recommended for all States is patterned on this Act.

This Act of 1905, creating the State Department of Health under which the Bureau of Vital Statistics is placed, provided for the registration of marriages.

The importance of official vital statistics has rapidly become more generally recognized. Many Health Administrators, physicians, lawyers, sociologists, and intelligent laymen everywhere are coming to realize more fully than ever before that effective human life registration is a necessary adjunct to our modern civilization. It is imperative to a State that accurate records be kept of its vital capital, of its gains by birth and immigration, and of its losses by death and emigration. A State's real wealth lies not in just its scenic beauty, not in its natural resources, not in its industries, but in its healthy, useful citizens.

Vital bookkeeping is carried on much as ordinary bookkeeping. There are periodic entries of assets and losses as they occur, corresponding to receipts and payments. One important difference does exist however. Accounts are accurate records of transactions and if properly kept, an exact balance will be obtained. But Vital Statistics are not always accurate, since the individual data is not always complete, and subject to error.

The chief purpose of the registration of vital statistics in Pennsylvania can be summarized as (1) affording legal records for the protection of the rights of individuals and especially of the more or less helpless classes, infants and women, and for court purposes; (2) essential data in the routine work of the health administration of a population over 10,000,000; (3) information which forms the basis for research into the factors governing human existence.

Of these three principal uses of vital records--legal, administrative, and statistical, the public is probably more familiar with the legal phase. Last year the State Bureau of Vital Statistics issued 48,338 duly certified copies of original records filed in Harrisburg. Copies of birth certificates are required in many cases as evidence (1) to prove the age and legitimacy of heirs; (2) to establish age and proof of citizenship and descent in order to vote; (3) of legal age to marry; (4) to prove the claims of widows and orphans under the widows' and orphans' pension laws; (5) to prove the irresponsibility of children under legal age for crimes and misdemeanors; (6) in the enforcement of law relating to education and to child labor; (7) as proof of citizenship in order to obtain a passport; (8) and in the claim for exemption from the military service, or the right to jury duty.

Certified copies of death certificates are in constant requisition in courts and elsewhere for the establishment of necessary facts. Pensions or life insurance may depend on proper evidence of the fact and the cause of death. The widows and orphans of all deceased soldiers must obtain such proofs. Titles and the rights of inheritance may be jeopardized by the failure to obtain vital records.

Under administrative are grouped the routine functions of the Bureau. Foremost among these is the filing of original certificates. From January 1, 1906 through December 31,1936, approximately 12,200,000 records of births, deaths and marriages have been registered in Harrisburg. Before being filed in fire proof cases, these records are checked and bound into books of 500.

A second function of the Bureau is to furnish notifications of births to mothers. This serves a two fold purpose in that it presents proof that the original certificate is recorded and secondly, it results in a more accurate registration of births. An amendment to the Act of 1905, signed by Governor Earle on April 22, 1937, provides for the issuance of Notifications of Birth by local registrars. The decentralization of this work will result in a more prompt service to all parents as well as an early correction if necessary of the original records.

The Bureau of Vital Statistics sends monthly to the United States Bureau of the Census transcripts of birth and death certificates. Under the Constitution the Federal Government cannot collect and record births and deaths except once in ten years in connection with the decennial census.

The indexing of vital records is listed under the administrative work of the Bureau.With the aid of Federal funds, it has been possible to complete the indexes for recent years which facilitates considerably the issuance of certified copies as well as the searching of records for other purposes. This Bureau receives no financial remuneration for searching records for the Department of Welfare, Military Affairs, Works Progress Administration, Department of Public Instruction, the State Retirement Fund, and the American Legion. Free copies of death certificates of foreign-born nationals are issued to consuls by virtue of treaty agreements.

In addition to these functions, the administrative work includes keeping the fiscal accounts of the Bureau's revenue. A total of $ 132,433.00 was received in payment for certified copies and searches in the biennium of 1935-1936. Over $24,000.00 more was transmitted to the State Treasury in this biennium than in any previous two year period. Within the past year, a modern accounting system has been installed in the Harrisburg, Philadelphia, and Pittsburgh offices.

Two outstanding innovations have recently been inaugurated in the Bureau -- first, the adoption of a 500 division Alphabetic Variadex System to handle the large volume of correspondence that comes into the Bureau, and secondly, the installation of equipment for photostating. In the year 1936 alone this Bureau handled over 480,600 pieces of correspondence.

This covers briefly the legal and administrative work performed in the Bureau. The third function is the statistical -- this is perhaps the most interesting. The average health worker can do a great deal of worthwhile statistical analysis of his own records. At the present time, however, most of the localities and health organizations in Pennsylvania depend upon the Bureau of Vital Statistics for information, and we try to give them the records in as much detail as our staff permits. Over 2,000 requests for statistical data are filled each year.

Each month, after death certificates are bound, they are coded for primary and secondary causes, tabulated electrically, and analyzed. Considering that one punch card is run through the machines many times, it is estimated that over 50,000,000 cards are tabulated yearly. With the completion of the tabulations, this work of computing rates and analyzing them begins.

We are often asked,"What is the general death rate ? " This rate is merely the total deaths, exclusive of stillbirths, divided by the total population. Last year the general death rate in Pennsylvania was 11.1 which represents 112,673 deaths. The birth rate, computed on the same basis, was 15.7.

Since 1921, a consistent decline in the birth rate has been apparent. This is true not only of this

State, but of the United States, and most of the civilized countries of the world. There is every indication that this downward trend will continue. In view of the rise in the death rate, it is possible that we will witness within the next twenty-five years what is known as a stationary population-- a situation in which the deaths equal the births. There are now some localities in this state at present where the deaths yearly outnumber the births.

While the general death rate is the most commonly used index of the health of a community, it should be interpreted cautiously. Very often an excessively high rate simply indicates that many nonresident deaths occurred in the city's hospitals. Another factor which affects mortality statistics is the composition of population -- the age groups, sex, color, and occupation of a city's inhabitants.

A more reliable criterion of local health conditions is the infant mortality rate. In 1936 this rate for the State was 50 (deaths of infants under one year) per 1,000 live births. Other so-called popular rates are those for tuberculosis which incidentally has been relegated from first to sixth rank among the leading causes of death; puerperal causes, more commonly known as maternal deaths; heart disease, which claims one in every four deaths from all causes; smallpox, the record of which is enviable in Pennsylvania. Only one death has been reported from smallpox since 1925 and no cases in the past four years.

The Bureau of Vital Statistics contains a wealth of statistical information and it has been gratifying to observe the increasing use made of this material by both private individuals and public agencies. As the public becomes more " statistically conscious " the real value of vital statistics as a science of human generation, growth and decay will be more generally acknowledged.

IMPORTANCE OF RESTAURANT HYGIENE

By R. W.Shelton

A strict and fixed policy of supervision and enforcement of Pennsylvania's restaurant and lunch-room laws has established within the State the highest type of standards for public safety and sanitation.

Pennsylvanians may note with pride an era of great accomplishment in this particular field, in which the Pennsylvania Department of Health has been the directing factor.

A trained personnel has carried on the work of the Department's Division of Restaurant Hygiene, and its sound, progressive policy (consistent with the requirements of the law) has been enforced in a manner that has been helpful to proprietors in the conduct of their establishments, and far-reaching in its public health benefits.

Cleaner, more prosperous establishments, and pleasant wholesome surroundings for their patrons, attest to the high type of service which the Department renders.

All this is in sharp contrast with a situation which existed not long ago. Among the things tolerated at that time were ill-kept, filth-laden public kitchens and eating parlors, which constituted a general menace and breeding ground for human diseases.

Inadequate refrigeration, tainted food and dangerous exposure of meats, vegetables, and similar products to filth and germs also tended to place the public health in constant jeopardy.

Little attention was paid to the physical condition of food and drink handlers. Typhoid carriers were free to work side by side with healthy, but susceptible individuals, and as cooks and waiters were in contact with those patronizing the establishments. The possibility that any employe might be spreading tuberculosis or venereal disease was of minor concern.

The cleanliness of public wash rooms and of proper toilet facilities, pure water supplies and safe garbage disposal was seldom provided for, and in far too many instances involved cheap and haphazard methods.

Today, all this is past. Clean and sanitary practices have become the rule, and the old-fashioned " Greasy Spoon" lunchrooms have been displaced by fine up-to-the-minute restuarants which are outstanding for cleanliness and comfort.

This progressive change has been brought about principally by the proper enforcement of Pennsylvania's health laws, and by means of public education. Glassware, silverware, dishes and other receptacles used by patrons must, by law, be cleansed in hot water and a sufficent amount of soap, or by hot water and chemicals. Individual towels and napkins have taken the place of the old-time roller towels to which any number of persons had access.

Screens must now be provided for doors and for windows to guard against dirt and flies. No exposure of unwrapped food is permitted. Refrigeration must be sanitary and adequate. The handling of garbage in tight fitting containers, the use of drinking water that has been approved by state inspectors, and clean well-kept toilets are now required.

All food and drink handlers must submit to a regular physical examination, a report of which, signed by a registered physician, is sent to the Department of Health.

Complete and thorough inspection of all these establishments each six months and prompt action in the handling and abating of public health nuisances that are reported to the Department of Health, have contributed much to the health and safety of Pennsylvania's citizens.

Working through Municipal Boards of Health in cities, boroughs, and first class townships, the Health Department maintains a constant check and control. Elsewhere the supervision is carried on by the Department's own district inspectors and county medical officers. Its policy of helpfulness has contributed to the success of individual proprietors, and its administration of the sanitary laws has made for a worth-while advance in all matters of public health and general welfare.

According to records in the Division of Restauant Hygiene there are more than 45,000 public eating and drinking places operated within the Commonwealth. Over 87,000 inspections were made during the year 1936 and 132,000 health certificates were issued to those employed in these establishments by the Department of Health.

This mass of work is just a part of the larger program of the Department of Health, a program that has as its goal the health of every citizen found within the confines of this great Commonwealth.

* * *

THE GORGAS AWARD

Of particular interest to Pennsylvanians were the annual awards for the eighth Gorgas Essay Contest. The winners were rewarded on June 15 at Washington D.C. with President Roosevelt, in his capacity of honorary president of the Gorgas Memorial Institute presenting the first prize to a youngster from Milwaukee.

Third prize in this contest went to a young student from St Rosalie High school of Pittsburgh, Miss Jeanne R. Ryan. Her prize was $ 50 and recognition from nationally known medical men and women for her ability.

Miss Ryan was selected to represent her State in the National contest by a committee headed by Doctor Edith MacBride-Dexter, and her fine showing in the prize winning list proved very pleasing to the committee.

* * *

Preparations are being made at Gettysburg for the reunion of Confederate and Union veterans that will commemorate the 75th Anniversary of the battle. In this connection a campaign is under way to stamp out all the possible breeding places for mosquitos. The Department of Health was called upon for help in this work, and a survey was also started to devise a better method for handling and disposing of all garbage and rubbish.

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With the close of schools for the vacation period it is interesting to note that in the Fourth Class districts nearly 200,000 pupils have been given routine examinations.

THE MONT ALTO CONFERENCE

By J. Moore Campbell, M.D.

On June 13 the Department of Health opened the third of the present series of annual conferences for field personnel at Mont Alto. Tents were pitched on the slope in front of the Administration building, and for two full weeks instructions were given to 339 persons.

Those called to the conference included county medical directors, chest clinicians, nurses, dental hygienists, and health officers. In addition members of the staff at Harrisburg made frequent trips to the camp.

The first day and a half of the week was devoted to tuberculosis control and the balance of the week to general health problems.

The work of the second week, beginning on the evening of June 20, duplicated that of the first week.

Half of the field representatives of the Dept. were present during each week and in this way neither routine nor emergency work throughout the state was seriously compromised by the absence of those at Mont Alto.

Our public health nurses, half at a time, were on the grounds for a solid week, while the Department's health officers who had more or less recently been admitted to the service, along with unqualified health officers from a number of boroughs were given an uninterrupted two weeks' course of instruction in the fundamentals of the why's and wherefore's of their duties.

All members of the central office staff met and discussed at length with appropriate groups not only their routine work but more particularly, perhaps, the augmented activity occasioned by the Federal allotments of money through the United States Public Health Service and the Women's and Children's Bureau in accordance with the provisions of the Social Security Act.

In a general way tuberculosis control, work in the control of venereal disease, the Department's work in orthopedics and maternal and child health work were especially emphasized.

Speakers included Dr. McPhedran, formerly of the Phipps Institute and now with Germantown Hospital in Philadelphia; Dr. William Devitt, Director of the Devitt Camp in Allenwood; and Dr. Moses Behrend, noted chest surgeon of Philadelphia, in discussion on the control of tuberculosis. Dr Willard and Dr. Nicholson of the University of Pennsylvania's Post Graduate Hospital, discussed orthopedic surgery, while Dr. Koycan of Wilkes-barre spoke on maternal and child health.

* * *

Preparations are now being made to place in pamphlet form most of the outstanding talks delivered at Mont Alto during the two weeks of the Instruction Camp. Included in this pamphlet will be the talk on tuberculosis by Dr. Edith MacBride-Dexter, found on Page One of this monthly bulletin, and the talk by Dr. Nicholson on orthopedics found on Page 39 of this publication.

* * *

A WORD ON ORTHOPEDICS

By Dr. Jesse T. Nicholson
University of Pennsylvania

Orthopedics is a study of bones and joints. Many people are under the impression that orthopedics refer to feet and shoe stores have commercialized on this. This is the wrong impression as this word is a derivative of the Greek word meaning " child".

There are a number of orthopedic conditions that are not recognized at birth by the general practioner, and it is about these conditions that I will talk at this time. Briefly, the conditions are; first, congenital dislocation of the hips; second, torticollis; third, club feet; and fourth obstetrical paralysis.

The correction of an orthopedic deformity is not like the ordinary medical case, due to the fact that the patient is not sick and often requires weeks, months, and even years of treatment. There are changes taking place every day that are not noticeable in the ordinary cases. These changes are either for the betterment of the correction or an increased deformity. For that reason close follow-up of orthopedic cases always is very important.

Orthopedic deformities are divided into two classifications, that is, congenital and acquired.

Under the classification of congenital we have primary, or those patients born with extra digits, or webbed fingers, and sometimes the absence of any extremity.

Secondary deformities are classified as the following; Congenital dislocation of hips, which is not very often recognized at birth. It is usually not noted until the child walks and then he walks with a waddle. The patient has a lordosis and the trochanter rides high.

This condition should be recognized in babies by the nurse in charge. If she finds a baby whose one leg appears shorter than the other, the nurse should be sure to notify the physician in charge.

Bilateral dislocation of the hips is very hard to recognize, but a trained observer will note that the child has an exceptional wideness across the pelvis.

Club feet.-- Treatment should be started at once in order to avoid an operation later. If treated early simple manipulations are all that is necessary.

Torticollis, or wry neck.-- This deformity should be recognized at birth for you will note that the child's head is held at one side. The child should be made to move its head so that the muscles may be stretched. You will find that parents are always too willing to pity the child instead of trying to obtain a correction. Torticollis can be cured by early treatment in training the child.

Acquired deformities.-- The important thing to remember is that you can usually associate this with trauma and night pain, inflamation and swelling. Your suspicion should be aroused immediately by these symptoms. You should remember that all bone tumors are not malignant, but require immediate attention. We, as a rule do not recognize them early enough to get proper treatment.

Nutritional deformities.-- Rickets and scurvy are caused by the absence of Vitamin D in the diet. All children with rickets are usually fretful and touchy. Rickets are in the healing stage before the deformity begins. Be sure that a child with rickets is getting enough Vitamin C and D in order to prevent deformities.

Volkman's Contracture.-- This deformity will follow the use of a circular bandage or cast that has been too tight on a fractured elbow. The color, size, and temperature of the arm and hand should be noted. If any of these symptoms are noted they should be reported to a physician as soon as possible in order that bandage or cast may be removed without disturbing the setting of the fracture. It takes only from three to five hours for the hand to become discolored.

Osteomyelitis.-- This is an infection of the marrow of the bone. The symptoms are that a child will have night cries, chills, and complain of pain in some joint. There is usually swelling and inflamation, and often the child will tell you that he was hit by one of his playmates. He should be placed under the care of a physician immediately.

Tuberculosis of the bones,-- When a person is complaining of his extremities tiring over a period of weeks, and starts to walk with a limp, and one leg does not have as much freedom as the other, and there are pains in the knee, you can immediately suspicion that he has tuberculosis of the hip, and it is best to have the hip examined by a physician. The person usually has night cries.

Pott's Disease.-- This is commonly known as tuberculosis of the spine. One of the symptoms is to see a child seemingly tired and not wanting to jump rope or play as other children. You will note that he does not stoop over to pick up an object as you or I but gets down on his haunches. You will also note that he picks his steps one at a time. Report these symptoms to a physician at once..

Infantile Paralysis.-- Usual symptoms are a slight temperature, with gastro-intestinal disturbances. Body is sensitive to touch about the third day. This should be reported to a physician immediately.

Spastic paralysis.-- This is a birth injury. We all should watch and try to prevent contractures before they develop.

There are also deformities caused by poor posture and by obesity, but the above mentioned are the most important to note and all parents should cooperate with their family physician in acting promptly on all symptoms that point to a possible deformity.

In this way many children can be saved from weeks, months, and sometimes years of suffering, and in many cases prompt work by the attending physician will affect a cure that if left too long will prove far too difficult for permanent cure.

This talk was given by Dr. Nicholson before a group of nurses at the Department of Health's annual Instruction Camp at Mont Alto. In his talk he stressed particularly the duties of the nurses in certain cases.

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